UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

NEW ENGLAND CARPENTERS HEALTH BENEFITS FUND; PIRELLI ARMSTRONG RETIREE MEDICAL BENEFITS TRUST; TEAMSTERS HEALTH & WELFARE FUND OF PHILADELPHIA AND VICINITY; and PHILADELPHIA FEDERATION OF TEACHERS HEALTH AND WELFARE FUND, Plaintiffs, v. FIRST DATABANK, INC., a Missouri Corporation; and McKESSON CORPORATION, a Delaware Corporation, Defendants	Civil Action No. 1:05-CV-11148-PBS

REPORT OF RAYMOND S. HARTMAN REGARDING AGGREGATE DAMAGES

TABLE OF CONTENTS

I. QUALIFICATIONS

1. My name is Raymond S. Hartman. I have submitted Declarations to this Court in this matter, *New England Carpenters Health Benefits Fund, et al. v. First Databank, Inc., and McKesson Corporation,* in July and December 2006, and in March and September 2007.

II. OVERVIEW AND SUMMARY

2. I have been asked by Counsel for the Plaintiffs to review the record to date, focusing most specifically upon the Court's August 27, 2007 *Memorandum and Order*;[1] my September 2007 Declaration analyzing impact and injury and calculating aggregate damages for the Classes identified and implied in the Court's *Memorandum and Order*;[2] and Dr. Willig's October 2007 Declaration. Counsel has asked me to respond to any remaining concerns that the Court may have raised and may still have regarding the calculation of aggregate damages that I introduced in my September 2007 Expert Report.

3. Having done so, I conclude the following:

a) My aggregate damage calculations are not overstated for the alternative periods I was asked to analyze, for the following reasons:

i. I do not assume that the 5% AWP Inflation Scheme caused ***constant injury*** and economic damages to Class members for 3½ years.

ii. I do not assume that there was no push-back or renegotiation of contractual reimbursement rates paid by consumers and TPPs.

iii. Rather, I rely upon the most widely-respected (and most widely-used by academics and the industry[3]) data source for summarizing retail payments by consumers and TPPs for brand-name self-administered drugs (SADs). That source is IMS Health, which provides summaries of samples of millions of transactions at retail and through mail order for drug products by month, on the part of consumer and TPPs (through PBMs).

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[1] Memorandum and Order, *New England Carpenters Health Benefits Fund, et al. v. First Databank, Inc., and McKesson Corporation*, United States District Court District of Massachusetts, C.A. No. 1:05-CV-11148-PBS, August 27, 2007 (hereafter *Memorandum and Order*).

[2] *Ibid.*, p. 2 and Hartman September 2007 Declaration), ¶¶ 8-12.

[3] In Attachment B, I identify a very small subset of the many peer-reviewed academic papers that rely upon the IMS data that I have used. I note in passing that Dr. Berndt has consistently relied upon the same data to address similar drug pricing questions. In addition, it is well known that drug manufacturers extensively use IMS data in their marketing, strategic and planning documents.

iv. I use these summaries of millions of transactions data to calculate, ***by month and by drug***, the extent to which the AWP Scheme inflated the amount paid by Class members at retail, relative to the amount paid by the retail provider at wholesale (the wholesale acquisition cost, or WAC).

v. For both Classes 1 and 2, I find that the inflation in drug payments by Class members was ***immediate*** upon implementation of the 5% Scheme, ***by drug***. I find that the inflation was ***enduring*** for the entire period for which I have data. Finally, I find that ***there was no systematic push-back or recoupment of the overcharges*** induced by the 5% Scheme.

vi. I also find that the inflation was not the same for each and every drug nor was it the same for any drug over time. Whatever changes did occur are measurable with the IMS data, and reflect changing competitive conditions and evolving contract renegotiations between PBMs and TPPs regarding dispensing fees and discounts off AWP at retail. These changes are explicitly included in my damage calculations.

- If changing competitive conditions and renegotiated discounts and dispensing fees caused the amount of price inflation to decrease over time, I explicitly take account of the resulting diminution in damages.
- If the changing competitive conditions and renegotiated discounts and dispensing fees eliminated the price inflation for a particular drug entirely, I attribute zero damages to that drug once the Mark-Up Inflation has been mitigated.
- If there were no economic injury at all from the date at which the 5% Scheme was implemented for a specific drug, then I calculate zero damages for this drug. There were a few such drugs identified by the IMS data.

vii. Hence, ***I net out essentially all of the variables that Dr. Willig argues must be analyzed at the individual TPP level***.[4] I allow for changes in WAC over time and merely calculate the extent to which drug payments were inflated relative to those changing WACs. I net out of my damage calculation all reductions in TPP reimbursement due to contract renegotiations regarding dispensing fees, discounts off AWP and pass-through of price reductions reflected in the reimbursement rates paid by TPPs at retail. I also net out a conservative aggregate calculation of rebates attributable to the reimbursement by the TPP class for the challenged drugs.[5]

[4] At ¶ 78 of Willig January 2007 Declaration, Dr. Willig incorrectly asserted "The market factors that Dr. Hartman assumes are unaffected by the change in AWP/WAC ratio and the artificial inflation in AWP are the following: Discounts off AWP, Dispensing fees and other fees, Rebate pass-through percentage, Risk-sharing terms, Co-pay terms and plan design, [and] WAC." I do not assume these factors were unchanged. I account for all of them as they affect TPP drug payments. I address this more fully in Section IV.

[5] I explain how I calculated my conservative deduction for rebates in Attachment F to my September 2007 Declaration.

viii. Finally, I use the claims data that Dr. Willig has introduced for two TPPs, GE and CIGNA, to demonstrate that the conclusions that I have found for all payors in the IMS data are also found for these two TPPs. Specifically, the inflationary impact of the Scheme upon drug reimbursement payments was immediate and enduring. The impact varied over time; however, relative to pre-Scheme reimbursement, the TPPs continued to be damaged through the end of the available data. Applying my damage methodology to these two TPPs, I demonstrate that while damages may have changed over time and may have been mitigated to some extent, they were never eliminated.

ix. I also demonstrate that Dr. Willig has incorrectly analyzed his TPP claims data, thereby biasing his findings of mitigation. As I discuss more fully below, Dr. Willig aggregates claims for both retail network pharmacy and mail order pharmacy. This aggregation is a fundamental error because it attributes changes in dispensing fees and discounts ***to all claims*** when the real cause of the change in discounts and dispensing fees is the shift in the mix of claims from retail to mail order. Correct analysis requires that one separate and analyze retail claims and mail order claims, which is what I have done in all of my previous analyses.

b) Because my statistical and mathematical analyses demonstrate that impact, injury and economic damages continued from the date of the implementation of the AWP Scheme through March 2005 for substantially all challenged drugs; and because my damage methodology accounts for all contract changes renegotiated in discount rates, dispensing fees and other factors that varied over time and over payors; I believe that it meets the Court's threshold for a methodology that does not overstate aggregate damages for whatever length of damage period the Court decides is appropriate.

Since my methodology is designed to accurately calculate aggregate Class-wide damages, which I understand as a matter of law is the appropriate evidentiary threshold at this point in the litigation, I do not address issues of individual TPPs with individual contract lengths that were renegotiated at different points in time. All such variations are reflected in the average measures of reimbursement that I calculate by month and by drug, pre- and post-Scheme implementation; all such variations are therefore included in the averages I use to calculate damages. I have addressed this issue in ¶¶ 16-19 of my March 2007 Declaration.

Indeed, using data introduced by Dr. Willig for two TPPs, CIGNA and the employer-sponsored plan of GE, I demonstrate how TPP-specific data confirm my aggregate analysis and can be used for the allocation of aggregate damages to individual Class members at the Claims Administration Phase.

c) Careful and reflective analysis of competition in the relevant markets indicates that while PBMs do compete for TPP business, the competition is nuanced and constrained by the fact that the PBMs (or their corporate parents) profited from the Scheme in their mail-order pharmacy sales and/or on their network pharmacy revenues. Indeed, those PBMs that were most likely to have noticed the increased spreads resulting from the Scheme (Defendants identify only two such PBMs, ESI

and Caremark) profited substantially from their large mail-order pharmacies and network-pharmacy revenue. These large PBMs already had large bases of TPP clients with large numbers of insured lives, upon which profit was being earned on mail-order and network-pharmacy prescriptions. As profit maximizing entities, these PBMs would be reluctant to compete "fiercely," if fierce competition gained, on the margin, a few more TPP clients at the risk of revealing information that led to the loss of profits on their large established client base. Hoever, even if PBMs did compete fiercely, if they did not know of the Scheme they could not have competed on the Mark-Up. While Defendants and Dr. Willig continue to assert that competition among PBMs is "fierce," they proffer no concrete examples of such "fierce" competition as it relates to the increased Spreads induced by the Scheme. I have demonstrated that the internal strategic discussions and competitive behavior of ESI reflected a calculated reluctance to share the information on the increased Mark-Ups or compete fiercely using the information. Furthermore, I have demonstrated that the single TPP that learned of the increased spreads learned from a manufacturer rather than its PBM, ESI.[6]

d) Finally, while Dr. Willig has put forward a variety of criticisms of my damage analysis, none of them are sufficient to alter my opinions and my damage calculations. Several of his criticisms of the IMS data reflect a profound misunderstanding of this standard data source which is used universally by academics and the industry. Likewise, his analysis of the claims data for two insurers (CIGNA and GE) demonstrates a lack of familiarity with TPP drug reimbursement claims data and its relationship to the IMS data.

4. This Declaration proceeds as follows. In Section III, I briefly review the salient features of my September 2007 Declaration with the explicit purpose of clarifying those details that may remain unclear to the Court. My hope is that the added explication will assist the Court in determining whether my methodology meets the threshold(s) the Court has in mind for a finding of a reasonable rather than an overstated calculation of aggregate damages. I also make use of the claims data introduced by Dr. Willig to demonstrate the reliability of the IMS data and the breadth of the conclusions that the IMS data allow me to draw. In Section IV, I address the Court's directions regarding my methodology and its application and the Court's concerns that it is accurate and does not overstate damages. In Section V, I quickly review the salient features of my September 2007 Declaration with respect to the fact that competition among PBMs, while real, has been less than "fierce" with respect to the impacts of the Mark-Up Scheme. In Attachment D, I respond to specific criticisms raised by Dr. Willig in his October 2007 Declaration and demonstrate them to be nugatory.

[6] See Hartman September 2007 Declaration, Attachment D. See ¶¶ 12-15, & 26-29 for what ESI knew, communicated and did not communicate. See ¶ 39.i) for a discussion of ConnectiCare, which is the only TPP that learned of the increased spreads. However, it learned of the increase from a source other than its PBM, ESI. There is no evidence that I have seen that ESI increased discounts to ConnectiCare. See ¶ 39.b) for a discussion of DC 37, which was promised higher discounts (AWP – 20%) by ESI when contract negotiations were begun but at the end of the negotiations their discount was reduced (from AWP – 16 to AWP – 15%), revealing strategically aggressive contract negotiating tactics that were certainly not "fiercely competitive;" rather they were exploitative.

III. MY DAMAGE METHODOLOGY PROVIDES AN ACCURATE CALCULATION OF AGGREGATE OVERCHARGE DAMAGES TO THE CLASSES FOR WHATEVER PERIOD THE COURT DEEMS APPROPRIATE

A. Review of My Damage Methodology and Its Implementation

5. In my September 2007 Declaration I calculate economic damages to the proposed Classes using IMS data. The IMS data summarize payments made at retail, by TPPs (through their PBMs) and by uninsured cash payors. The IMS data are the most widely-respected and universally-used data for the analysis of pricing, promotional efforts, sales and other economic and business issues in pharmaceutical markets. I present in Attachment B a subset of the wide array of scholars, including Dr. Berndt, that have used the IMS and note that IMS data is used extensively by drug manufacturers for marketing and strategic planning purposes.

6. Contrary to Dr. Willig's assertions, the IMS data for PBM payments ***do reflect*** what TPPs reimbursed for the relevant drugs. As I discuss in my critique of Dr. Willig's October 2007 Declaration in Attachment D to this Declaration, the payments made by PBMs to pharmacies reflect actual costs paid by the TPPs because there is a constant relationship between what the PBMs pay the pharmacies and what the TPPs pay the PBMs for brand name drugs. There is ***no*** evidence that this relationship changed after the Mark-Up Scheme was implemented and, in fact, there is ample evidence that it did not change. My use of the IMS data is the functional equivalent of using actual TPP claims data for many TPPs. I demonstrate this fact in Section III.B below, using the GE and CIGNA claims data introduced by Dr. Willig. For precisely this reason, IMS data are used universally by academics and by the industry as measures of pricing at retail.

7. For TPP drug claims, the IMS data reports the amount allowed (AA) by TPPs (and paid by their PBMs) for reimbursement to retail pharmacies; it is calculated formulaically as AA = AWP (1 – d) + df. This formula is well known to this Court. Note that since IMS reports AA, any changes to the discount off AWP (d) and the dispensing fee (df) negotiated or renegotiated in PBM/TPP contracts will appear immediately in the IMS retail transaction data, since IMS tracks AA by transaction, by drug and by month.[7]

8. Using these data for the bellwether drugs that Dr. Willig introduced as being important signals to "those who specialize in monitoring drug prices,"[8] I demonstrated that once the 5% Mark-Up Scheme was implemented, the Mark-Up of retail allowed amount (AA) above retail pharmacy cost (WAC) increased immediately by 3.4%-4.2%. In order to measure this mark-up, I use the ratio AA/WAC. Note that if the Mark-Up

[7] While the IMS data purport to tabulate ingredient cost only, analysis suggest their reimbursement data include the dispensing fee. See Attachment F of my September 2007 Declaration.

[8] At ¶¶ 64 – 66 of Willig January 2007 Declaration, Dr. Willig presents the changes in AWP for 2001 for Lipitor 10 mg (13.5%), Plavix 75 mg (16.9%), Prevacid 30 mg (11.5%) and Wellbutrin SR 150 mg (14.3%). The quote comes from ¶ 66. See also ¶ 51 of Attachment D to my September 2007 Declaration and its related footnotes.

Scheme increased the amount paid by the classes of payors, AA would have increased relative to WAC; that is, AA/WAC would have increased. They both did.

9. Furthermore, I demonstrated that the Mark-Up remained inflated for the next 24 months, that is, for all months for which I had data to conduct the analysis. For some of these four bellwether drugs, the Mark-Up inflation increased over time through the end of the 24 months (i.e., for Lipitor 10 mg and 20 mg and for Prevacid 30 mg); for the other drugs (Plavix 75 mg and Wellbutrin SR 150 mg), the Mark-Up inflation decreased over that time period. However for all four drugs, at the end of 24 months the Mark-Up inflation remained at 3.00%-4.39% relative to the pre-Scheme (but-for) Mark-Up, and it was positive and greater than the pre-Scheme (but-for) Mark-Up by at least 3.00% throughout the 24 months.

10. These findings are made explicit in greater detail in Table 1 and Figures 1.a) through 1.e) in my September 2007 Declaration. In Figures 1.a) through 1.e) it is clear that the IMS data allows me to track by month and by drug**,** over millions of real-world transactions, the Mark-Up of retail allowed amount to WAC (AA/WAC) prior to the implementation of the Scheme $(AA/WAC)_{bf}$ and the Mark-Up of the retail allowed amount to WAC after the implementation of the Scheme $(AA/WAC)_{a}$. If this mark-up increased as a result of the Scheme, the Classes were economically injured. The difference between the Class members' allowed amount relative to the pharmacy cost induced by the Scheme is the measure of damages induced by the Scheme; that is, Damages = $(AA/WAC)_{a} - (AA/WAC)_{bf} = (AA_{a} - AA_{bf})/WAC$. In all cases, AA (the allowed amount) measures AWP (1 – d) + df, where d and df may change by month.

11. The same monthly pattern was found for almost all challenged drugs ("Appendix A drugs").

a) The same monthly pattern is revealed by the following representative group of Appendix A drugs – Allegra 60 mg; Celebrex 100 mg and 200 mg; Celexa 10 mg and 20 mg; Neurontin 300 mg and 400 mg; Nexium 20 mg and 40 mg; Prilosec 20 mg and 40 mg; Risperdal 0.25 mg and 1mg/ml; Seroquel 100 mg and 200 mg; and Zyprexa 10 mg and 15 mg.[9]

b) The same monthly patterns are revealed for a broad cross-section of Appendix A drugs for which comparable and sufficiently complete data are available.[10] I summarize the aggregate average inflation in Mark-Ups to Class members for these drugs in ¶ 22 of Attachment F of my September 2007 Declaration as follows:

[9] I present these results in Figures F.3.a) through F.3.q) of Attachment F of my September 2007 Declaration.

[10] I indicate the size of the sample and related considerations in footnotes 21-25 of Attachment F of my September 2007 Declaration.

Increase in the mark-up of drug reimbursement (AA) relative to WAC[11]	Time from Implementation of the 5% Scheme
3.82%	1-6 months
3.78%	7-12 months
3.83%	13-18 months
3.99%	19-24 months

The comparable calculations for ***each*** drug are found in Attachment F.1.d of my September 2007 Declaration.

c) I demonstrate that there is ***no*** Mark-Up inflation for those brand name drugs not subject to the Scheme.[12] This finding further confirms that the Scheme and the Scheme alone inflated the mark-ups of the Appendix A drugs.

d) Examination of the results in Exhibit F.1.d of my September 2007 Declaration demonstrates that there is variation in the overcharges induced by the Mark-Up Scheme, by drug and by time period. Specifically, $(AA/WAC)_a - (AA/WAC)_{bf} = (AA_a - AA_{bf})/WAC$ varied by drug and month. For a few drugs, other factors acted to negate the impact of the Scheme on Class member payments at retail. In those cases, damages are zero.

12. The implications of these findings for my calculation of damages are the following:

a) I calculate damages as $(AA/WAC)_a - (AA/WAC)_{bf} = (AA_a - AA_{bf})/WAC$ by drug and by month. The precise mathematical formulae are found in ¶¶ 51-53 of Attachment F of my September 2007 Declaration. For a given drug with a given WAC in a given month, if the Mark-Up Scheme has increased the amount paid by Class members (AA_a) above the amount that would have been paid by the Class members absent the Mark-Up Scheme (AA_{bf}), I find damages. Specifically, if $(AA/WAC)_a - (AA/WAC)_{bf} > 0$, the Mark-Up Scheme caused damages to the Class for that drug in that month.

b) Since I use actual real-world data summarizing millions of transactions, I can calculate the average AA, pre- and post-Scheme relative to WAC, by drug and by month. I can ascertain the variations across drugs caused by differences in TPP and PBM competitive responses to the Scheme; the variations caused by changes in formulary placement; the effects of any push-back that may have occurred by drug or across groups of drugs; and any other changes.

c) If competitive behavior among PBMs for TPPs were sufficient to negate the Scheme, this will result in the post-Scheme Mark-Up $\{(AA/WAC)_a\}$ being "pushed-back" or "mitigated to" the but-for or pre-Scheme Mark-Up

[11] Reported as the absolute increase in the Mark-Up in percentage points, that is $(AA/WAC)_a - (AA/WAC)_{bf}$. The percentage increases in the Mark-Up are respectively 3.26%, 3.23%, 3.27% and 3.40%.

[12] See Figures F.4.a) through F.4.s) in Attachment F of my September 2007 Declaration.

{$(AA/WAC)_{bf}$}. In that case, my calculation results in no damages for the Classes.

d) This is the competitive result asserted by both Dr. Willig and McKesson Counsel.

- In his January 2007 Declaration Dr. Willig asserts "My analysis of the role of PBMs in the self-administered branded prescription drug distribution business shows that PBMs facilitate the operation of market mechanisms that cause TPP reimbursement rates to return to or retain their levels that prevailed prior to the artificial change following the change in the AWP/WAC ratio and artificial inflation in AWP."[13]
- McKesson Counsel, Ms. Schechter, has asserted before this Court: "But look at what ESI does because they say the PBMs, not only did the PBMs not know but they didn't do anything about it. To the contrary, Express-Scripts goes out, recontracts with its pharmacies and gets the money back -- this is the recoupment point I was making -- gets the money back for its clients so that their impact is zero."[14]

e) ***However, neither Dr. Willig nor McKesson Counsel should assert such results. Since we have and I use actual real-world transactions data, I can ascertain whether the mitigation asserted by Defendants' Counsel and Dr. Willig did occur, and I can net out of my damage calculation any mitigation or "push-back" that actually did occur***. If mitigation is only partial, my calculation of damages will be reduced but not eliminated, since I observe the effect of the push-back in the reimbursement data (in $(AA/WAC)_a$). If mitigation is complete, Damages = $(AA/WAC)_a - (AA/WAC)_{bf} = (AA_a - AA_{bf})/WAC = 0$. If the TPPs are made better off by the competitive responses, Damages = $(AA/WAC)_a - (AA/WAC)_{bf} = (AA_a - AA_{bf})/WAC < 0$.[15]

13. The real-world retail transactions data that I utilize for my damage calculation reflect any and all renegotiations in PBM/TPP contracts regarding any and all terms of drug reimbursement that are reflected in the amount paid by TPPs at retail (that is, the discounts off AWP; the dispensing fees; the amounts paid at retail that result from a renegotiated risk-sharing agreement or drug benefit plan). These are the important competitive terms to TPPs.

14. ***Using my real-world IMS transactions data, I have demonstrated that Dr. Willig and McKesson's Counsel are wrong for most drugs.*** There is no systematic push-back or mitigation such that "TPP reimbursement rates .. return to or retain their levels that prevailed prior to the artificial change." Wherever there is some "push-back"

[13] Willig January 2007 Declaration, ¶ 43.

[14] The Motion/Status Hearing, *New England Carpenters Health Benefits Fund, et al. v. First Databank, Inc., and McKesson Corporation*, United States District Court District of Massachusetts, C.A. No. 1:05-CV-11148-PBS, May 22, 2007, (hereafter *Motion/Status Hearing*), p. 29.

[15] Dr. Willig develops examples where he incorrectly conjectures that TPPs will be better off; see the Willig January 2007 Declaration at ¶ 82. McKesson Counsel also incorrectly argues that TPPs will be better off. See ¶ 34 of Attachment D of my September 2007 Declaration.

or mitigation resulting from contract renegotiation by drug and/or by months, I explicitly take account of that mitigation in my damage calculation. Wherever there is complete "push-back" or mitigation by drug and/or by months, I explicitly take account of that complete mitigation in my damage calculation. Furthermore, I deduct a conservative (i.e., large) calculation of the aggregate amount of rebates paid to the TPP Class as a result of the Mark-Up Scheme, in order to make my damage calculation conservative.[16] Hence, my damage calculation is not overstated. It has accounted for all important economic impacts of the Scheme on the relevant Class members for whatever length of time the Court decides to find as relevant.

15. I discuss how my damage methodology addresses the specific directions of the Court in its August 2007 *Memorandum and Order* in Section IV below.

B. Corroboration of My Damage Methodology and My Finding of Enduring Economic Injury in the GE and CIGNA data.

16. Dr. Willig introduces claims data from two TPPs, GE Group Life Assurance (GE) and CIGNA, in order to impeach my use of the IMS data in my damage methodology. Not only do his attempts fail, these claims data and correct analysis of them confirm my use of the IMS data.

17. Dr. Willig asserts that TPP claims data are more accurate for a damage analysis, because they reflect more precisely the impact of the Mark-Up Scheme and the impact of PBM competition to mitigate the Scheme for each TPP. I note that because the IMS data includes retail transactions for a substantial sample of TPPs, it is inconceivable that the IMS data do not include reimbursement claims for GE or CIGNA. Hence, these two TPPs are represented in the IMS survey data I use. However, Dr. Willig believes that independent examination of these data will reveal that the Scheme had little or no impact. He is incorrect.

18. To do so, Dr. Willig presents an analysis for each TPP purporting to calculate analogous measures (Table 1 of my September 2007 Declaration) of the Mark-Up inflation induced by the Scheme for his four bellwether drugs. He presents those results in his Tables 1 and 2 of his Appendix 4 of his October 2007 Declaration. He finds that the Scheme had an immediate inflationary impact upon the mark-up and reimbursement rates paid by GE and CIGNA. Indeed, for CIGNA the impact was immediate; it was enduring; and it was quite similar to the average impacts calculated over all payors in the IMS data.[17] For GE, the inflationary impact of the Scheme was immediate, and it was enduring for all but one of the drugs (by NDC). However, for GE there is evidence in his Table 1 of considerable mitigation of the impacts of the Scheme.

19. However, the evidentiary value of Dr. Willig's analysis is compromised by a fundamental methodological error. In his analysis of the claims data for both GE and

[16] See ¶¶ 60-61 of Attachment F of my September 2007 Declaration.

[17] I have demonstrated this concordance in my Video Presentation. I reproduce it in Attachment C of this Declaration.

CIGNA,[18] ***he aggregates retail claims and mail order claims together, rather than analyze them separately***. Since different contractual terms (i.e., discounts off of AWP, dispensing fees and copays) are negotiated between TPPs and PBMs for mail-order pharmacy and retail-network pharmacy, the related claims must be analyzed separately. Damages must be calculated for each group of claims separately. Since there was a strategic shift by PBMs to move network pharmacy prescriptions to PBM in-house mail-order pharmacy, which is more profitable to the PBMs, mixing the claims together results in incorrect measures of the impacts of the Scheme. In my analysis, I separated the retail network transactions from the mail order pharmacy transactions in the IMS data.

20. The methodological problems arising with his aggregation of both types of claims are more serious in the conclusions he draws from his analysis of the GE claims data because of the small number of observations for each of the drugs (NDCs) that he examines. Closer and correct disaggregated analysis of the GE claims data demonstrates the following:

a) When I recalculate the percentage changes in the mark-ups for Dr. Willig's bellwether drugs for retail and mail order separately, I find the inflationary impacts of the Scheme generally to be larger than those found by Dr. Willig in his Table 1 of his Appendix 4.[19] His results were much lower because they mixed mail order and retail pharmacy together. In my Table 1 below, I present my recalculation for retail and mail-order claims analyzed separately.

b) I find the impact and economic injury is immediate and enduring over the entire 24 months for all drugs reimbursed at retail network.

c) I find that the impact and economic injury is greater for claims filled through mail order, which is most likely the PBM's mail-order pharmacy since Medco was GE's PBM and Medco has its own mail-order pharmacy. This finding is consistent with my understanding of the industry trend that PBMs moved their TPPs to their in-house mail-order pharmacies, because these in-house pharmacies were more profitable.

d) I do find evidence of reduction in the inflated mark-ups 1½ years after the Mark-Up Scheme was implemented for these four drugs. This reduction suggests some mitigation. ***However, the mitigation is not complete; damages were still positive, although reduced; and I can calculate damages for these claims using my damage methodology.*** I demonstrate this in Attachment C, where I show that GE experienced positive damages on all four drugs throughout the periods for which I have claims data.

e) While there appears to have been a renegotiation and recontracting, as evidenced by a change in the mail order dispensing fee and a decrease in the discount off of AWP, for GE 1½ years after the Scheme was implemented for these drugs, it is unclear whether that renegotiation was in response to the mark-up in the spreads.

[18] I have been able to confirm this for GE. While it appears to be the case for Cigna, as well, I have had insufficient time to confirm it.

[19] Attachment C replicates this analysis for all drugs appearing in the GE claims data.

It is clear that positive damages continued to be incurred by GE on these drugs after the renegotiation. These positive damages are calculable. Cutting off the damage period at the date of renegotiation (July 2003) or one year after the Scheme was implemented broadly (March 2003) will underestimate damages induced by the Scheme and incurred by GE through March 2005.

Table 1: Summary of the Mark-Up Inflation Found in the GE Claims Data

			Change in Price Paid/WAC After Ratio Change				Percentage Change in Price Paid/WAC After Ratio Change			
GE Drug Label	GE Volume	Date of Ratio Change	Period 1 Actual - But For	Period 2 Actual - But For	Period 3 Actual - But For	Period 4 Actual - But For	Period 1	Period 2	Period 3	Period 4
A. Dr. Willig's Results										
LIPITOR 10MG	$321,174.24	Jan-02	2.98%	2.99%	2.82%	0.82%	2.82%	2.83%	2.66%	0.77%
LIPITOR 20MG	$273,763.04	Jan-02	2.71%	2.71%	1.26%	-0.27%	2.58%	2.58%	1.20%	-0.26%
PLAVIX 75MG	$55,589.31	Jan-02	5.22%	2.65%	1.20%	1.59%	5.07%	2.57%	1.16%	1.54%
PREVACID 30MG	$375,220.23	Jan-02	2.90%	3.39%	2.46%	0.74%	2.74%	3.20%	2.33%	0.70%
WELLBUTRIN SR 150MG	$178,069.08	Jan-02	3.72%	2.89%	1.76%	0.32%	3.53%	2.74%	1.67%	0.30%
B. Retail Only Claims										
LIPITOR 10MG	$225,915.66	Jan-02	3.57%	3.55%	3.44%	1.93%	3.27%	3.26%	3.15%	1.77%
LIPITOR 20MG	$166,295.80	Jan-02	3.51%	3.08%	2.26%	0.88%	3.22%	2.83%	2.08%	0.80%
PLAVIX 75MG	$26,007.60	Jan-02	3.84%	3.53%	2.60%	1.65%	3.55%	3.27%	2.41%	1.53%
PREVACID 30MG	$313,198.67	Jan-02	3.33%	3.49%	3.15%	2.01%	3.11%	3.26%	2.94%	1.88%
WELLBUTRIN SR 150MG	$130,325.65	Jan-02	4.11%	4.13%	2.58%	2.47%	3.82%	3.83%	2.39%	2.29%
C. Mail Order Only Claims										
LIPITOR 10MG	$95,258.58	Jan-02	3.78%	3.91%	3.86%	1.85%	3.90%	4.04%	3.98%	1.91%
LIPITOR 20MG	$107,467.24	Jan-02	3.86%	3.99%	3.85%	2.41%	4.00%	4.14%	3.99%	2.49%
PLAVIX 75MG	$29,581.71	Jan-02	4.36%	4.47%	4.43%	2.86%	4.54%	4.66%	4.61%	2.98%
PREVACID 30MG	$62,021.56	Jan-02	3.99%	3.95%	3.93%	2.53%	4.14%	4.10%	4.08%	2.63%
WELLBUTRIN SR 150MG	$47,743.43	Jan-02	3.83%	4.05%	2.96%	1.70%	3.97%	4.20%	3.07%	1.76%

21. In order to provide more intuition for the Court, it may be useful to clarify this discussion using actual discounts off AWP (d) and actual dispensing fees (df) found in GE's claims. These are the most important determinants of AA (which equals (AWP (1 – d) + df)) that are subject to the renegotiations and complete mitigation that McKesson and Dr. Willig assert[20] occurred as a result of "fierce" PBM competition to mitigate the Mark-Up Scheme. I again examine the bellwether drugs introduced by Dr. Willig. The Mark-up Scheme was implemented for these drugs in January 2002; there was an immediate inflation in the Mark-Up of AA above WAC; there was an immediate and enduring overcharge in the drug payments by Class members at retail. These results are found in the IMS data and in the GE and CIGNA claims data when properly analyzed. According to Defendant's theory of PBM competition, I should not find this result in any of these data bases, because d and df should have been quickly renegotiated to "push-back" the Mark-Up Scheme. However, a closer examination of the GE claims data demonstrate the following:

[20] They do make this assertion, as I document in ¶ 12.d) above.

a) The changes in discounts off AWP were minimal for both mail order and retail pharmacy, ***when those claims are analyzed separately***, over the Class Period. They are insufficient to mitigate the injury from the Mark-Up Scheme.[21]

b) The changes in dispensing fees at retail network pharmacies were minimal over the Class Period and not sufficient to mitigate the injury form the Mark-Up Scheme.

c) There were changes in the dispensing fees for mail-order pharmacy claims some 18 months after the implementation of the Mark-Up Scheme for these drugs. However, those changes were insufficient to mitigate the injury from the Scheme.

d) As a result of the Scheme, GE paid increased costs for their drug claims. The overcharges paid by GE to their PBM on their mail order claims once the Mark-Up Scheme had been implemented were substantial and continued throughout the Class Period.

e) Damages were positive throughout the entire period for which I have mail order claims and network pharmacy claims. These damages are presented in Attachment C, Table 4.

22. Figure 1 presents the discount off AWP for these 5 NDCs by quarter, for mail-order and retail-pharmacy claims separately. For retail claims, the average discount off AWP was 13% in the 2nd quarter of 2001; it decreased slightly for three quarters and returned to approximately 13% in Q2:2002; it remained at 13% until the 3rd quarter of 2003 when it increased to 14%. Dispensing fees at retail remained virtually unchanged at $2.00 per prescription over the entire period, as demonstrated in Figure 2. For mail-order claims, the average discount off AWP was 20% from 2001:Q2 and remained at 20% until the 3rd quarter of 2003 when it increased to 21%. The average mail-order dispensing fee increased after implementation of the Scheme, until the 3rd quarter of 2003, when it decreased substantially.[22]

23. Based upon this information, it is clear that there was no push-back or mitigation through increased discounts off AWP and the dispensing fee offered to GE by its PBM until a full year and a half after implementation of the Scheme. Even at that time (3rd quarter of 2003), the change in the discount off AWP was minimal for both retail and mail order claims (i.e., 1%), and the change in the dispensing fee for retail claims was trivial. Although there ultimately was a large reduction in the dispensing fee for mail-order, the amount of the decrease in the dispensing fee is *de minimis* compared to the overcharges induced by the Scheme.

[21] I note that Dr. Willig reports discounts and dispensing fees for both retail and mail-order claims aggregated together. See Table 3, Appendix 4 of Willig October 2007 Declaration. The resulting patterns of changes have no evidentiary value since the changing mix in retail and mail-order is not addressed.

[22] More precisely, prior to the Scheme mail-order dispensing fees were $1.13 per claim; they increased to $1.16 in Q1 of 2002, when the Scheme was implemented; df further increased to $1.23 in the 3rd quarter of 2002 through the 2nd quarter of 2003. The dispensing fee decreased in the 3rd quarter of 2003 to 50 cents per prescription.

Figure 1: Average Discount off AWP for 5 NDCs: GE Claims Data

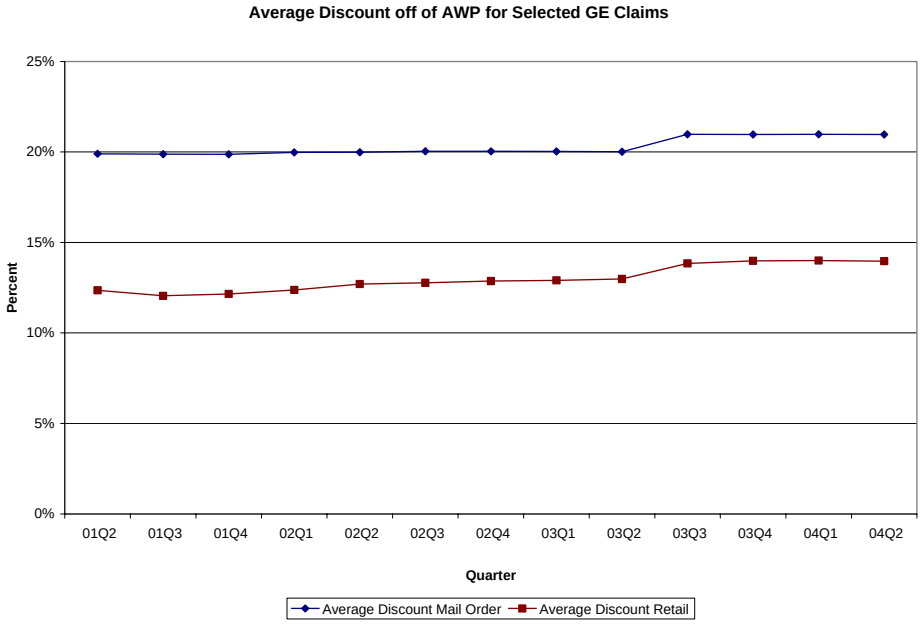
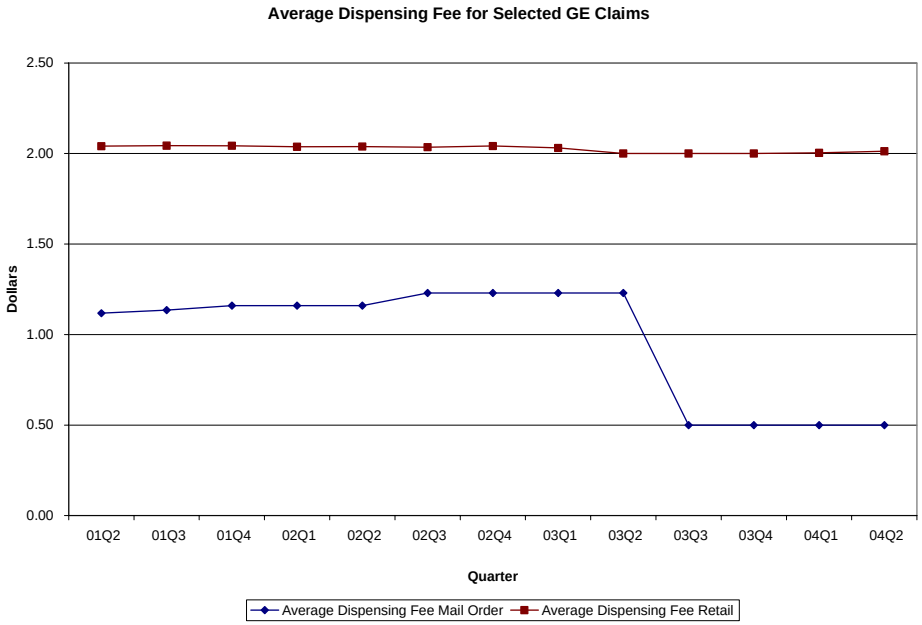


Figure 2: Average Dispensing Fee for 5 NDCs: GE Claims Data



24. There is no mitigation of the Mark-Up Scheme for GE by its PBM through the 2nd quarter of 2003, after which there appears to have been some renegotiation of d and df at retail. If I conservatively[23] assume that these contract renegotiations were induced entirely by the Mark-Up Scheme (for which there is no supporting evidence), GE continued to be overcharged at retail as a result of the Mark-up Scheme through April 2004, the last quarter for which I have useable data. Based on all GE claims, GE incurred damages (at retail and mail order) of $32,047 for these 5 NDCs over the period for which I have claims data. Even though there were changes in the discount off AWP and the dispensing fee, positive overcharge damages occurred in every quarter. Push-back was minimal for most of the period and only partially reduced the overcharges.

25. Clearly, if I had similar claims data for all TPPs, I could have implemented this calculation for each TPP. However, my analysis of IMS data provides an accurate calculation of aggregate damages for all TPPs. The GE claims data confirms my IMS analysis that the Mark-Up Scheme had an immediate and enduring impact upon GE in the form of overcharge damages for the four Willig bellwether drugs. The CIGNA claims data confirms my IMS analysis that the Mark-Up Scheme had an immediate and enduring impact upon CIGNA in the form of overcharge damages for the four Willig bellwether drugs. Had Dr. Willig's analysis of GE claims data been done correctly (that is, had Dr. Willig ***separately analyzed and compared*** retail pharmacy claims and mail order claims rather than aggregate them together), it would have confirmed more explicitly my analysis based on the IMS data.

26. As I demonstrate in Attachment C, Tables 4 and 5, using the claims data for GE and CIGNA, I find positive damages for each of Dr. Willig's bellwether drugs over the entire period for which claims data are available. While I have not done so, I could just as easily have performed the same calculation for all Appendix A drugs for which GE and CIGNA claims data are available. If the PBMs were "fiercely competitive," as asserted by McKesson, most or all of the overcharge impacts of the Scheme upon GE and CIGNA would have been mitigated almost immediately. We do not see this in either the retail-pharmacy or mail-order claims for GE. We do not see this for the Cigna claims.

27. While the Court may choose to arbitrarily terminate the damage period with a contract renegotiation or with some arbitrary time limit (one year, two years), that termination will lead to a serious understatement of the TPP damages.

[23] To be conservative, I make this assumption. However, as I have discussed in my previous declarations there were other exogenous factors contributing to the renegotiation of contracts between PBMs and TPPs. Prior to the implementation of the Scheme, a trend for decreasing discount rates off AWP and decreasing dispensing fees has been documented. See Hartman March 2007 Rebuttal Declaration.

IV. MY DAMAGES METHODOLOGY PROVIDES AN ACCURATE MEASURE OF DAMAGES UNDER THE COURT'S DIRECTIONS AND THRESHOLDS

A. My Damages Methodology Provides an Accurate Measure of Damages Regardless of the Length of the Damage Period

28. The Court has rendered the following opinions regarding calculation of damages for the TPP Class, which I believe are most pertinent to the validity of my aggregate damage methodology.[24]

> "Plaintiffs have a persuasive argument that the alleged fraud had a class-wide impact because the AWP baseline for negotiation of new contracts was fraudulently increased. However, as explained above, PBMs and TPPs typically have complex highly individualized negotiated contracts which involve a bundle of trade-offs. Dr. Hartman's methodology for calculating aggregate damages would lead to a significant overstatement because it fails to consider key provisions in contracts that are renegotiated and renewed. Individualized trials or hearings on damages for renewed and renegotiated contracts in the proposed individualized allocations with aggregate damages would be a morass. Unlike the consumer class, there would be no simple formula to apply to the bundle of adjustments in response to the increase in the WAC/AWP formula. …
>
> Based upon this record, this Court is satisfied that his theory of aggregate impact is sufficiently well-founded for the consumer class to allow this case to proceed as a class action. However, I am not persuaded that the aggregate methodology works with respect to the proposed class of TPPs. As I understand the methodology, it includes contracts that were renegotiated after the large bump-up in early 2002. Dr. Hartman may submit an aggregate damage methodology which includes only those contracts in effect when the scheme took place and excludes reimbursements under contracts renegotiated in response to the increase. Another alternative would be to only include damages for one year after the large increase in 2002 took effect. As a practical matter, the large TPPs can protect their own interests and can opt out if this approach does not adequately compensate them."

29. As clarified in Section III, I use IMS data in my damage methodology. These data accurately summarize the amounts paid by TPPs over millions of transactions. While it is true that "PBMs and TPPs typically have complex highly individualized negotiated contracts which involve a bundle of trade-offs," ***the effects of all of these tradeoffs on drug payments by Class member TPPs before and after the implementation of the Mark-Up Scheme are explicitly reflected in the IMS transactions data***. If there are complex renegotiations that reduce the impact of the Scheme, those negotiations are

[24] *Memorandum and Order*, pp. 24-25.

reflected in the IMS transactions data and incorporated in my damage calculation as reduced damages ("pushed-back" or "mitigated" damages).

30. The most important terms included in the bundle have been identified by Dr. Willig[25] as follows: "Discounts off AWP, Dispensing fees and other fees, Rebate pass-through percentage, Risk-sharing terms, Co-pay terms and plan design, [and] WAC."

a) "Discounts off AWP" – Any changes in discounts off AWP, ***occurring in response to overall market trends and/or competitive reaction to the Mark-Up Scheme*** will be reflected immediately in the amounts paid by TPPs at retail, since TPPs reimburse or pay an allowed amount AA = AWP (1-d) + df. My damage model accounts for those changes on a monthly basis and calculates damages that take into account such changes. If there is a reduction in AA caused by a renegotiated "push-back" and increased discount (d), the allowed amount AA will therefore be less and damages will be less when that AA is compared with the but-for AA. But there will still be damages.

b) "Dispensing fees and other fees" – It is unclear what Dr. Willig is referring to by "other fees." In any case, the effects of changes in the dispensing fees, resulting from contract renegotiations in response to overall market trends and/or the Mark-Up Scheme are immediately reflected in the allowed amounts (AA) recorded by reimbursement transactions at retail as surveyed by IMS. If the other fees are reflected in reimbursement rates (AA) at retail, they are included in the IMS data and reflected in the damage calculation.

c) "Rebate pass-through percentage" – As I explain in ¶¶ 60-61 of Attachment F of my September 2007 Declaration, I conservatively estimate the aggregate amount of rebates that would be passed through to the TPP Class as a result of the Mark-Up Scheme.[26]

d) "Risk-sharing terms" – There has been limited testimony put forward concerning the prevalence and the renegotiation of risk-sharing terms. It is clear that some TPPs negotiate reimbursement rates with an eye toward sharing risk with the PBM. Those negotiations are reflected in the final terms concerning discounts off AWP, dispensing fees and the sharing of rebates. Since my IMS transactions data include levels and the changes in the levels of discounts off AWP (d) and dispensing fees (df), those terms and the changes in those terms are explicitly reflected in my damage calculation. Likewise, the amount of rebates paid has been conservatively estimated.

[25] See footnote 4 above.

[26] The examples of renegotiated rebate-pass through are not relevant to the Damage Period. For example, in ¶ 84 of his January 2007 Declaration when he asserts, "If, as a result of the alleged scheme, a TPP extracts a greater percentage pass-through, then the alleged scheme's affect on actual reimbursement will be reduced or completely eliminated." However the five examples he gives in his ¶ 85 were all negotiated prior to the Scheme. If there had been such an active renegotiation of rebate pass through post-Scheme, I would expect that Dr. Willig could give us some real evidence. In any case, I have conservatively overestimated the rebate pass amount.

e) "Co-pay terms and plan design" – To the extent that drug benefit plans are renegotiated to alter the discount off AWP, the dispensing fee and/or formulary placement, the relevant aspects of those renegotiations are reflected in the calculated amount allowed to be paid by the TPP (AA) at retail, as calculated in ¶ 29.a) above.

f) "WAC" – I have data on changes in WAC whenever they occur. Those changes are explicitly reflected in the damage calculation, as AA/WAC which is calculated by drug and by month.

31. I conclude that the preponderance of the bundle of contract terms, about which the Court is concerned and which could vary across TPPs and PBMs by contract, are reflected in and accurately measured by the amounts allowed to be paid at retail, AA = AWP (1-d) + df. These amounts are the economic measures required to calculate damages; these amounts are tabulated for millions of transactions over one of the broadest surveys of TPPs' and PBMs' retail drug payments available, the IMS survey data. I further conclude that to the extent that there are any remaining terms in the bundle that are not explicitly reflected in the IMS transactions data or my rebate correction, they are of second-order importance (indeed, *de minimis*)[27] to my calculation of aggregate damages. My "methodology for calculating aggregate damages" does not "lead to a significant overstatement because it … [uses data that explicitly and accurately] … consider[s] key provisions in contracts that are renegotiated and renewed" as those provisions impact the amounts paid by TPPs at retail. These amounts vary across TPPs and PBMs; the IMS data reveals such variations. However, my damage methodology makes use of average reimbursement rates, by drug and by month. Such averages are well known to provide an accurate measure of aggregate damages, which is the measure required at this time, as I discuss more fully in my review of Dr. Willig's October 2007 Declaration in Attachment D to this Declaration.[28]

32. In the *Motion/Status Hearing*, the Court entertained a variety of possibilities for the calculations of damages. For examples, in colloquy with Plaintiffs' and Defendant's counsel, the Court asked the following pertinent questions:

a) "So within a year or two of the bump-up of the price, you've already seen adjustments. Why wouldn't I just be able to at most do like a year, a year after the switch-on?" (p. 8).

b) "They're locked into a contract for maybe a year or two years, but then they do push back, right?" (p. 8).

c) "Well, at least some do and some don't. I mean, so the question is, how could you deal with that issue if there's going to be a – I would assume that all of them have contracts, and most of them probably are for a year. Maybe some are for

[27] At his ¶¶ 35 & 37 of his October 2007 Declaration, Dr. Willig attempts to minimize the importance of the terms for which I have corrected – those that appear in the amounts paid for drug reimbursement at retail and those involving rebates. The remaining terms are indeed of second-order importance. There is no evidence that any of these other terms mitigated the injury from the Scheme, except for Dr. Willig's conjecture.

[28] See also ¶¶ 16-19 of my March 2007 Declaration.

two and maybe some for three. Is there a way of dealing with the damage issue in a way that could deal with the fact that you wouldn't take damages past that first year when they're locked into a certain price?" (pp. 8-9).

d) "Now, if I don't go as far as you want me to go, what is the alternative to the years that are locked in? What are in general the contract years?" (p. 14).

e) "Maybe I could just say for a year after the change so that Dr. Hartman could more predictably calculate a damage figure, because how would he know in advance how many have a one-year contract, two-year contract, three-year contract, et cetera?" (p. 36).

33. These are all reasonable conjectures. They focus primarily upon contract length and contract renegotiation. ***Given the fact that my damages calculation explicitly incorporates the effects of contract renegotiations on drug payment transactions and on rebates at any time, it does not overstate damages for whatever length of time the Court should decide is appropriate.*** However, the Court has focused more specifically upon contract length in its more recent *Memorandum and Order*. While I understand from the testimony of Kimberly McDonough that PBM/TPP contracts generally are subject to durations of two to three years, the Court has opined that I

> "may submit an aggregate damage methodology which includes only those contracts in effect when the scheme took place and excludes reimbursements under contracts renegotiated in response to the increase. Another alternative would be to only include damages for one year after the large increase in 2002 took effect. As a practical matter, the large TPPs can protect their own interests and can opt out if this approach does not adequately compensate them" (quoted in ¶ 28 above).

34. There is no data base that would allow me to identify and exclude on a Class-wide basis those contracts that were "renegotiated in response to the increase." If the only alternative that the Court offers is to calculate "damages for one year after the large increase in 2002 took effect," I can do so and have done so. I have presented that calculation in Table 3 of my September 2007 Declaration; I discuss the calculation in ¶¶ 70-73 therein. I have calculated damages for this one year period using the same methodology that I have described above in Section III. I conclude therefore that my calculation for this one year period is accurate and does not overstate damages. In fact, as I demonstrate in Attachment E to this Declaration, my use of IMS data results in a conservative calculation of the overcharge damages to the TPPs.

35. I would also like to mention that since the Court has opined that "as a practical matter, the large TPPs can protect their own interests and can opt out if this approach does not adequately compensate them," my damages methodology demonstrates that the large TPPs should consider such an option. Damages continue to be large and unmitigated throughout the period ending March 2005. Of course, while the damages will also be large relative to their size, the smaller TPPs may be unable to undertake individual litigation.

B. The Relevance of TPP Claims Data Used by Dr. Willig

36. Proper analysis of Dr. Willig's claims data demonstrates a variety of facts:

a) First, my use of IMS data and my methodology is accurate. I find the same results for both GE and CIGNA claims data used by Dr. Willig, after correcting for the errors he introduced by commingling retail-pharmacy and mail-order pharmacy claims.

b) Second, GE and GIGNA were injured economically and damaged throughout the Class Period, despite the fact that the claims demonstrate there was a contract renegotiation by GE with its PBM Medco in July 2003. As a result of that renegotiation, there is some mitigation found in the GE claims. However, that mitigation was insufficient to eliminate the injury resulting from the Mark-Up Scheme. Since I find the same result in the IMS data, it is unlikely that the IMS data is somehow masking mitigation for individual TPPs.

c) Third, the claims data indicate that the IMS does provide an average which can be used to calculate aggregate class-wide damages. Some of the claims data demonstrate mark-ups above the national average; some of the claims data demonstrate mark-ups below the national average. This is precisely what one would expect from a subset of sample reimbursements relative to the average across a much boarder group of TPPs and payors.

d) Fourth, the claims data provided by Dr. Willig suggest the means by which damage allocation can be accomplished at the claims administration phase. Any TPP coming forward can calculate damages just as I have done for the length of period for which it incurred damages and for all Appendix A drugs for which it incurred damages. The TPP can submit that damage calculation for full compensation or proportional compensation from a settlement amount.

C. The Relevance of Variability Among Class Members

37. In his most recent Declaration (at his ¶ 12), Dr. Willig contradicts his earlier opinion (cited at my ¶ 12.d) above) asserting "I never concluded that there was zero impact of the change in AWP/WAC ratio. That is a damages question and I was never asked to offer an opinion on damages." If Dr. Willig was not asked to offer an opinion on damages, I am surprised at the extent to which he has criticized my damage calculation as being overstated. How does he know that if he has never been asked to offer an opinion on, and I would therefore assume has never calculated, damages?

38. Regardless of this apparent contradiction, Dr. Willig continues (at his ¶ 12), "Instead, I was asked to address issues related to class certification. I opined that determination of impact and damages requires an individualized analysis because of the evidence of the variety of TPP specific responses to the increase in AWP resulting from the change in the AWP/WAC ratio."

39. These assertions suggest that he now admits to the possibility of damages by TPPs, but he believes that individual inquiry is necessary to accurately calculate aggregate damages and therefore certify class.

40. Defendant experts always appeal to variability among potential class members as defeating the use of the class vehicle. I have already addressed these issues at some length in ¶¶ 16-19 of my March 2007 Declaration. I had thought they had been resolved. There simply is no market in which there is no variation among individual class members. For that reason, a variety of standard economic methodologies has been developed, which are used regularly to calculate aggregate class-wide damages. My analysis and calculation of average damages by drug and by month over the broadest representative sample of TPPs and cash payors (i.e., the IMS data) represents such a standard economic methodology. The IMS data that I use summarize millions of transactions explicitly measuring Dr. Willig's "variety of TPP specific responses to the increase in AWP resulting from the change in the AWP/WAC ratio." Variations of the methodology that I have used here have been used by me and many other economists in certifying class and calculating aggregate damages in a wide array of class action litigation; variations have been used by other economists studying pharmaceutical markets; variations are used by members of the pharmaceutical industry to develop market strategies. My analysis is sufficient for an accurate calculation of aggregate damages. Individual inquiry is not needed.

V. WHILE PBMS DO COMPETE, THE EVIDENCE DEMONSTRATES THAT PBM COMPETITION WAS NOT SUFFICIENTLY "FIERCE" TO PUSH-BACK OR MITIGATE ALL OR EVEN MOST OF THE CLASS-WIDE DAMAGES GENERATED BY THE MARK-UP SCHEME

41. In my September 2007 Declaration at ¶¶ 62-69 and its Attachments D and E, I have addressed at some length the nature of PBM competition for TPP business. I admit that competition occurs among profit-maximizing PBMs for the business of administering and managing TPPs' pharmacy benefit plans. However, I find that the resulting competition is complicated and constrained by a variety of factors. These complications, nuances and constraints make it highly unlikely that PBM competition was sufficiently "fierce" to have "pushed-back" or mitigated the impacts of the 5% Mark-Up Scheme.

42. The real issue is not whether PBMs compete. They do. The important questions are twofold. First, did PBMs generally know of the impacts of the Scheme so that they could actually initiate competitive responses? If they did not know, they could not compete ***at all*** on this margin. Second, if enough PBMs knew and did initiate competitive responses, would such competition for TPP business be sufficiently "fierce" to have ***fully mitigated or fully pushed-back*** the drug payment overcharges induced by the Mark-Up Scheme?

43. In answer to the first question, the evidence presented to the Court to date demonstrates that only two PBMs (ESI and Caremark) of more than 50 knew of the

impacts of the Scheme. These two accounted for only 16% of all insured lives covered by PBMs and only 17% of expenditures processed by PBMs.[29] There has been no evidence introduced that ESI and Caremark competed as a result of this knowledge. There is no evidence they were able to increase market share by competing, either passively or fiercely, with this information. There has been no evidence that ESI and Caremark systematically or even selectively renegotiated and/or improved TPP reimbursement contracts, based upon the knowledge of the increased mark-ups. Since no other PBM has been demonstrated to have known of the impacts of the Mark-Up Scheme, there is no reason that any other PBM could compete using this information. Certainly no evidence has been introduced to that effect.

44. In answer to the second question, even if a larger group of PBMs knew of the increased spreads, in order for competition to have been sufficiently "fierce," these PBMs would have had to use that knowledge to "squeeze out" all excess profit earned by the retail chains, by the network-retail pharmacies and by mail-order pharmacies owned by PBMs or independent of PBMs. These retailers were the intended beneficiaries of the Scheme. As I explain below, this competitive result is unlikely, as a matter of economics and the industrial organization of the relevant markets. There is absolutely no actual evidence that this result occurred, other than conjecture about the "invisible hand" of competition.

45. The notion that competition will "squeeze out" all excess profits may be appropriate for a commodity market, such as steel or agricultural products. In order for such competition to occur, the following conditions must exist.

a) Fairly complete information must be available to providers and consumers regarding the price and quality of the services being provided. Consumers must avail themselves of that information and use it to make decisions regarding choice of service provider.

b) Consumers must have the ability to readily compare such information across alternative service providers. When products or services are homogenous and market prices determined in a publicly open market (say the stock market or a commodity market) such a comparison is easy.

c) Consumers must be able to switch among providers at relatively low costs of switching. Ease of switching is important, since competition will only be aggressive or "fierce," if providers can easily convince consumers/clients to switch by offering a better deal which the consumers/clients can understand is better. If the switching process is complex, prolonged and subject to uncertainly, switching will be difficult; the ability of competing providers to induce switching will be difficult; the switching behavior of consumers will be inertial;[30] and

[29] Atlantic Information Services, *A Guide to Drug Cost Management Strategies: Recent Results, Current Practices, Future Plans*, 2002, p. 359.

[30] As recognized by Dr. Daniel McFadden in his article, "Free Markets and Fettered Consumers," *American Economic Review*, 2006, 96(1), pp. 5-29; see my discussion in ¶ 80 of my November 2006 Direct Testimony in the AWP MDL matter.

competition cannot be fierce. In such situations, competition must be more like a wooing process.

46. The structural characteristics of the markets and competitors at issue here make it impossible for competition to be aggressive or fierce.

a) Information is far from perfect or complete in these markets.

i. While FDB does regularly publish the basic list price information, i.e., the AWPs and WACs, it is clear from deposition testimony that most TPPs do not track that most basic information.[31] Likewise, it is clear that most PBMs do not track such information at a degree of scrutiny required to have alerted them to the increase in spreads across the wide array of Appendix A drugs.[32]

ii. Furthermore, list price information is only a small amount of all information needed to make competition aggressive. Providers must accurately signal the market with the actual transaction costs they offer with their services, relative to the list prices AWP and WAC. Consumers must be able to accurately understand those signals and make decisions to select a given provider or switch among providers based upon those signals.

iii. Open public signaling of such information is not done. A TPP will learn of the transaction costs offered by a few PBMs by sending Requests for Proposal (RFPs) for drug benefit plans to that pre-selected subset of alternative PBM providers. In those proposals, offers of discounts and dispensing fees at retail and mail order are provided, along with offers of rebate sharing percentages and other terms.

iv. In order for competition to be fierce, competing PBMs must observe the offers of other PBMs, and thereby fiercely compete to undercut them. They do not observe those offers. They may be told something about competitive offers by the TPP with which they are negotiating; however, they will not be able to discern whether that information is true or strategically motivated. Likewise, a TPP may be told certain information by a PBM about other TPPs' offers and/or other PBMs' offers; however, it will not be able to discern whether that information is true or strategically motivated. In order for competition to be fierce, all PBMs should have the opportunity to submit proposals; they do not.

b) The fact that transactions are consummated through negotiation and bargaining has important implications for the nature of competition.

i. If buyers (here TPPs) shop on the basis of price and only need to know the price at which the sellers (here PBMs) offer the product or service, competition among sellers should drive prices down to long-run average costs. ***This reasoning is not correct in bargaining models that describe the relationship between TPPs and PBMs.*** Indeed, the fact that "purchasing" the service in these markets is the subject of bargaining and negotiation rather

[31] See ¶¶ 39-45 of Attachment D of my September 2007 Declaration.

[32] See ¶¶ 11-23 of Attachment D of my September 2007 Declaration.

than an arm's length transaction makes it impossible for competition to be fierce. In a Nash or Roth-Nash model of bargaining, for example, the "reservation" position (the market position a party could achieve if no agreement were reached) is relevant to determining the outcome of a bargain. Here, if a TPP bargaining with a PBM believed the PBM were forgoing profits of X by not striking a deal, the outcome would be different than if the TPP thought the PBM were forgoing profits of 10X. In particular, the TPP would bargain more aggressively if it thought the PBM had more to lose. Thus, to the extent that the level of overall profits that a PBM will earn on a contract is unobservable, the PBM can negotiate a more favorable contract, and even in the presence of competition, can earn substantial margins. Thus, it is in the PBM's self-interest to keep unobservable, or to hide, an increase in profits due to a particular event or set of events, when those profits are being earned at the expense of TPPs, which is the case here. ***Thus, it is in the PBM's self-interest not to share the information that is required to allow competition to be "fierce."***[33]

ii. McKesson's further claim that TPPs would have offset the sudden increase in AWPs through other features of the contract (in particular, increased discounts) is flawed when applied to these markets. If PBMs operated in a "fiercely" competitive market, a "participation constraint" (e.g., a zero, or fixed profit constraint that would be necessary to induce the PBM to sign the contract) would indeed imply that higher net payments in one part of a contract would be compensated for by lower payments in another. In a bargaining situation, this is not true. A new source of hidden profits, as alleged in this matter, would effectively change the bargaining results of the two parties; it would alter the division of the surplus between the two parties in bargaining (using the Roth-Nash model described above). Therefore, McKesson's actions to increase the spread to retailers would not be compensated for by discounts elsewhere but instead will result in higher net payments by TPPs (and harm to Class members).

[33] This fact is admitted by ESI internal strategic documents, presented at length in Attachment D, ¶¶ 12-14 of my September 2007 Declaration: "The network pharmacies are the big winners in the situation as their reimbursement from PBMs has been superficially increased. … PBM will receive additional income for their mail order prescriptions. … The client [TPPs] will see an increased trend [cost] in direct relation to the increase in AWP. … ESI will see an increase in margin per script and rebate. … The client [TPPs] will see an increase in drug costs. Members will pay more for % copay plans, they will meet their deductibles and caps sooner."

Likewise, according to a recently-produced ESI e-mail, ESI admits to the benefit enjoyed from the Mark-Up Scheme but expresses concern that the information reach the market: The "AWP increases being pushed through by First Data Bank is having a very favorable impact on our mail margins," [but TPP clients will not be sympathetic if they find out that we] "have benefited from the AWP increase in the mail and they hired us to control drug trend." See Email from George Paz to Barrett Toan and others, April 26, 2002 re "AWP pricing" (ESI-414-00005439).

c) Switching costs are important in limiting competition.

i. Another institutional feature of the PBM service market that prevents "fierce" or "frictionless" competition is the existence of switching costs. There are fixed costs associated with putting out an RFP, evaluating bids, and in the event of a switch, disseminating new information to members and establishing protocols for electronic data interchange. PBM contracts are therefore typically long term, which softens any price competition that might arise between PBMs. This notion of competition is analogous to that observed in physician markets, where doctor-patient relationships inhibit patient willingness to shop around for better prices or quality. Such "monopolistic" competition, as it is referred to in the economics literature, permits PBMs (like physicians) to maintain high profit margins even where there is a low level of market concentration. Such "monopolistic competition" or "imperfect competition" makes it highly unlikely PBMs would have squeezed out the increased retail and mail-order profit earned as a result of the Mark-Up Scheme.

d) TPPs inability to monitor service provider (PBM) performance or adherence to contractual terms is important.

i. As noted above, TPPs hire PBMs through a request for proposal (RFP) process to undertake a task on their behalf – to manage their pharmacy benefit plan. While the TPPs can observe what their contracted rates are as a function of AWP as well as the total amount they are spending once the contract is in place, they cannot observe numerous dimensions of the tasks undertaken by the PBMs. For example, TPPs cannot observe the magnitude of rebates (or other payments) that the PBM earns from pharmaceutical manufacturers related to formulary status and market share of various brand name drugs, nor can they observe how aggressively the PBM promotes generic substitution. Likewise, unless the TPPs somehow knew how to track AWP and WAC prices over time for the drugs at issue, they could not observe the alleged AWP inflation resulting from the Scheme. Discovery materials in this matter demonstrate that very few TPPs track AWPs and WACs in this fashion.[34] In light of the small percentage of total health care spending at issue and the numerous other factors that might push monthly drug spending up or down, even a sophisticated TPP would have had a difficult time determining whether such an observed increase was part of general health care spending growth, the reflection of new drug launches or seasonal increases in utilization. With thousands of drugs and millions of claims, TPPs faced an enormous monitoring problem concerning PBM and retailer behavior.

ii. When clients (TPPs) have a difficult time monitoring their providers (PBMs) behavior, it is possible for their incentives to diverge. Specifically, PBMs compete to be the "agent" of the TPP. However, once a PBM has been selected, it is well-known that an "agency" problem or a "principal-agent"

[34] See Attachment D, ¶ 39.

problem can arise. The TPP hires the PBM to act as its representative (its agent) to perform a variety of drug-benefit-plan management activities. The TPP pays an administrative fee, as incentive, to its agent, the PBM, to perform these activities. However, if the PBM earns, as incentive, more income from other sources, such as drug manufacturer rebates and/or payments from retail chains seeking to participate in the PBM network,[35] it is likely that the PBM will be less concerned with its duties to its principal (the TPP) than it will be concerned with satisfying the strategic needs of those other entities. As a result, the "principal-agent" problem arises; the PBM will not properly act to solely reflect, protect and compete for the economic interests of the principals (i.e., the Class members) retaining it to perform contracted activities. As a result, competitive motives and behaviors are blunted.

iii. Finally, the fact that only a small percentage of health care spending is at issue here has been stressed by McKesson's Counsel and recognized by the Court.[36] This certainly suggests that the "importance of being unimportant" may have affected the degree to which TPPs monitored and developed information regarding the Appendix A drugs and the degree to which the TPPs may have attempted to induce aggressive competition.

e) I have discussed at length the conglomerate nature of PBM business. The evidence suggests that only the largest PBMs (ESI and Caremark) observed the increased spreads induced by the Mark-Up Scheme. These PBMs are part of larger health care service conglomerates, owning and operating affiliated mail-order pharmacies and retail pharmacies.[37] These PBMs profited from the Mark-Up Scheme in their affiliated mail-order and retail pharmacies, in addition to their revenue from network retail pharmacies. When a PBM is affiliated with a mail-order pharmacy and/or a retail pharmacy (e.g., ESI, Caremark and Medco Health), the PBM affiliate earns the entire retail margin increased by the Scheme and faces the same incentives as the retailers who conspired to induce and perpetuate the alleged fraud.[38]

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[35] For example, according to Schondelmeyer and Wrobel, "Examination of the sources of revenue for PBMs reveals that PBMs make more money from manufacturer revenue than they make from employer/client fees. Other major sources of revenue include revenue from pharmacy discounts not passed on to the end payer. Some analysts have raised concerns about the potential conflict of interest faced by PBMs with more revenue from drug manufacturers [and pharmacies] than from the employer or client. Another potential conflict of interest results from a PBM promoting their own pharmacy (a mail order pharmacy) while at the same time reviewing prices and processing prescription claims of community pharmacies." See Stephen W. Schondelmeyer and Marion V. Wrobel, "Medicaid and Medicare Drug Pricing: Strategy to Determine Market Prices," Final Report, Abt Associates Inc., Prepared for Centers for Medicare and Medicaid Services, August 30, 2004, p. 13.

[36] *Motion/Status Hearing*, pp. 27-29, colloquy between Ms. Schechter and the Court. Ms. Schechter reminds the Court that less than half of brand-name SADs is challenged in this litigation.

[37] See Table E.1, Attachment E, my September 2007 Declaration. See also ¶¶ 11, 13, 17-20 of Attachment E.

[38] See ¶¶ 18-20 of Attachment E of my September 2007 Declaration.

47. The evidence regarding the conduct of the competitive entities in this market demonstrates that competition was not fierce.

a) McKesson and the retailers advocating the Mark-Up Scheme would have never done so if competition were "fierce," since the Mark-Up Scheme simply would not have worked. If competition were fierce, the Scheme and the retail profits induced by the Scheme would have been quickly squeezed out of the retailers by the PBMs and those benefits would have been shared with the PBMs' client TPPs.[39] McKesson and the large retail chains, which are large sophisticated market entities that argued for implementation of the Scheme, would have certainly known that this would occur, if competition were indeed "fierce." Their conduct demonstrates that they knew that competition was not "fierce."

b) I have developed the record at length regarding ESI and its behavior. ESI understood the spreads were increased and ESI benefited from that increase. ESI did not broadly disseminate that information. What ESI did not communicate was more remarkable than what it communicated. There is no verifiable record that ESI increased discount rates and lowered dispensing fees to mitigate the impacts of the Scheme.[40]

c) I have examined available deposition testimony of the TPPs in this matter and observed their behavior. The record demonstrates that most TPPs did not know of the increased spread. The few that did have some realization about the spread were sufficiently uncertain as to its extent and how to respond so as to have done nothing about it.[41]

48. Finally, if competition were sufficiently fierce to have completely mitigated the impacts of the Mark-Up Scheme, we would see the mitigation in the payment data for the Class members. We would find it in the contractual terms regarding the amounts allowed for reimbursement at retail (AA). We would see it in the IMS and TPP claims data. ***We simply do not find evidence of any meaningful mitigation.*** We do not see it in the IMS data for millions of transactions. We do not see it in the claims data introduced by Dr. Willig for GE and CIGNA. Admittedly, the mark-up of payments allowed at retail above cost (WAC) did decline for some drugs. However, it increased for other drugs. It is only for a very few drugs (the number is *de minimis*), that the impact of the Mark-Up Scheme was totally mitigated at some point during the Damage Period.[42] For almost all drugs, the Mark-Up Scheme was not mitigated and positive damages were incurred by the TPP Class and the Consumer Class over the entire Damage Period for which I have data.

49. At ¶¶ 14 and 15 of his October 2007 Declaration, Dr. Willig asserts that "Dr. Hartman rejects the Court's statement that '[c]ompetition among PBMs for the business

[39] Ms. Schechter argues this result would occur at pp. 29 and 32 of the *Motion/Status Hearing*. She puts forward no evidence that it is true.

[40] See Attachment D to my September 2007 Declaration.

[41] I develop this record at length in my Attachment D to my September 2007 Declaration.

[42] As discussed above in Section III, for these drugs no damages are calculated.

of TPPs is fierce.' Instead, Dr. Hartman contends that PBMs benefited from the alleged scheme through their mail order and retail pharmacy businesses and, enabled by the lack of 'fierce' competition, had no incentive to inform TPPs of the alleged scheme or to mitigate the impact upon them." He ***incorrectly*** draws the conclusions that "Dr. Hartman needs this new theory to support his position that there were no market responses to the change in the AWP/WAC ratio for the full class period. Dr. Hartman's presentation asserts that PBM competition is not 'fierce,' and then proceeds under the presumption that there is no competition at all among PBMs."

50. ***Dr. Willig's assertions are a serious mischaracterization.*** I do find that competition was not fierce, as a matter of economic theory and as a result of the evidence in the matter. However, I certainly have not asserted nor do I find that there was "no competition at all among PBMs" or that there was "no market responses to the change in the AWP/WAC ratio for the full class period." Quite the contrary, my quantitative analysis and results, presented in detail in my September 2007 Declaration and its Attachment F, reveal changes in the AWP/WAC ratio by drug and by month. I present evidence of reductions in the AWP/WAC ratios for some drugs and increases for others. My damage methodology incorporates all of those changes; it does not assume that no changes occurred.

VI. SUMMARY AND CONCLUSIONS

51. My most important conclusions are the following.

52. My aggregate damage calculations are not overstated for the alternative periods I was asked to analyze, for the following reasons:

a) I do not assume that 5% AWP Inflation Scheme caused ***constant injury*** and economic damages to Class members for 3½ years.

b) I do not assume that there was no push-back or renegotiation of contractual reimbursement rates paid by consumers and TPPs.

c) Rather, I rely upon the most widely-respected (and most widely-used by academics and the industry) data source for summarizing retail payments for brand-name self-administered drugs (SADs). That source is IMS Health, which provides samples of millions of transactions at retail and through mail order for drug products by month.

d) I use these millions of transactions data to calculate, ***by month and by drug***, the extent to which the AWP Scheme inflated the amount paid by Class members at retail, relative to the amount paid by the retail provider at wholesale (the wholesale acquisition cost, or WAC).

e) I find that the inflation in drug payments by Class members was ***immediate*** upon implementation of the 5% Scheme, by drug. I find that the inflation was ***enduring*** for the entire period for which I have data. Finally, I find that ***there***

was no systematic push-back or recoupment of the overcharges induced by the 5% Scheme.

f) I also find that the inflation was not the same for each and every drug nor was it the same for any drug over time. Whatever changes did occur are measurable with the IMS data, and reflect changing competitive conditions and evolving contract renegotiations regarding dispensing fees and discounts off AWP. These changes are explicitly included in my damage calculations.

- If changing competitive conditions and renegotiated discounts and dispensing fees caused the amount of price inflation to decrease over time, I explicitly take account of the resulting diminution in damages.
- If the changing competitive conditions and renegotiated discounts and dispensing fees eliminated the price inflation for a particular drug entirely, I attribute zero damages to that drug once the Mark-Up Inflation has been mitigated.
- If there were no economic injury at all from the date at which the 5% Scheme was implemented for a specific drug, then I calculate zero damages for this drug. There were a few such drugs identified by the IMS data.

g) Hence, ***I net out essentially all of the variables that Dr. Willig argues must be analyzed at the individual TPP level***. I allow for changes in WAC over time and merely calculate the extent to which drug payments were inflated relative to those changing WACs. I net out of my damage calculation all reductions in TPP reimbursement due to contract renegotiations regarding dispensing fees, discounts off AWP and pass-through of price reductions reflected in the reimbursement rates paid by TPPs at retail. I also net out an aggregate calculation of rebates attributable to the reimbursement by the TPP class for the challenged drugs.

h) I have corroborated my statistical analyses and my methodological approach using Dr. Willig claims data for two TPPs, GE and CIGNA. Rather than contradict my approach and calculation of damages, I find that these data support both.

53. Because my statistical and mathematical analyses demonstrate that impact, injury and economic damages continued from the date of the implementation of the AWP Scheme through March 2005 for substantially all challenged drugs; and because my damage methodology accounts for all contract changes renegotiated in discount rates, dispensing fees and other factors that varied over time and over payors; I believe that it meets the Court's threshold for a methodology that does not overstate aggregate damages for whatever length of damage period the Court decides is appropriate.

54. Since my methodology is designed to accurately calculate aggregate Class-wide damages, which I understand as a matter of law is the appropriate evidentiary threshold at this point in the litigation, I do not address issues of individual TPPs with individual contract lengths that were renegotiated at different points in time. All such variations are reflected in the average measures of reimbursement that I calculate by month and by drug, pre- and post-Scheme implementation; all such variations are therefore included in

the averages I use to calculate damages. I have addressed this issue in ¶¶ 16-19 of my March 2007 Declaration.

Indeed, using data introduced by Dr. Willig for two TPPs, CIGNA and GE, I demonstrate how TPP-specific data confirm my aggregate analysis and can be used for the allocation of aggregate damages to individual Class members at the Claims Administration Phase.

/s/ Raymond S. Hartman

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Raymond S. Hartman
Executed on October 29, 2007

Attachment A

ATTACHMENT A
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Attachment B

ATTACHMENT B
SAMPLE OF ACADEMIC AND OTHER RESEARCH USING IMS HEALTH DATA

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Attachment C

Table 1: Summary of the Mark-Up Inflation Found in the GE Claims Data

GE Drug Label	Rank	NDC	GE Volume	Date of Ratio Change	Change in Price Paid/WAC After Ratio Change				Percentage Change in Price Paid/WAC After Ratio Change			
					Period 1 Actual - But For	Period 2 Actual - But For	Period 3 Actual - But For	Period 4 Actual - But For	Period 1	Period 2	Period 3	Period 4
A. Dr. Willig's Results												
LIPITOR 10MG	3	00071015523	$321,174.24	Jan-02	2.98%	2.99%	2.82%	0.82%	2.82%	2.83%	2.66%	0.77%
LIPITOR 20MG	5	00071015623	$273,763.04	Jan-02	2.71%	2.71%	1.26%	-0.27%	2.58%	2.58%	1.20%	-0.26%
PLAVIX 75MG	40	63653117101	$55,589.31	Jan-02	5.22%	2.65%	1.20%	1.59%	5.07%	2.57%	1.16%	1.54%
PREVACID 30MG	1	00300304613	$375,220.23	Jan-02	2.90%	3.39%	2.46%	0.74%	2.74%	3.20%	2.33%	0.70%
WELLBUTRIN SR 150MG	11	00173013555	$178,069.08	Jan-02	3.72%	2.89%	1.76%	0.32%	3.53%	2.74%	1.67%	0.30%
B. Retail Only Claims												
LIPITOR 10MG	3	00071015523	$225,915.66	Jan-02	3.57%	3.55%	3.44%	1.93%	3.27%	3.26%	3.15%	1.77%
LIPITOR 20MG	6	00071015623	$166,295.80	Jan-02	3.51%	3.08%	2.26%	0.88%	3.22%	2.83%	2.08%	0.80%
PLAVIX 75MG	64	63653117101	$26,007.60	Jan-02	3.84%	3.53%	2.60%	1.65%	3.55%	3.27%	2.41%	1.53%
PREVACID 30MG	2	00300304613	$313,198.67	Jan-02	3.33%	3.49%	3.15%	2.01%	3.11%	3.26%	2.94%	1.88%
WELLBUTRIN SR 150MG	12	00173013555	$130,325.65	Jan-02	4.11%	4.13%	2.58%	2.47%	3.82%	3.83%	2.39%	2.29%
C. Mail Order Only Claims												
LIPITOR 10MG	5	00071015523	$95,258.58	Jan-02	3.78%	3.91%	3.86%	1.85%	3.90%	4.04%	3.98%	1.91%
LIPITOR 20MG	2	00071015623	$107,467.24	Jan-02	3.86%	3.99%	3.85%	2.41%	4.00%	4.14%	3.99%	2.49%
PLAVIX 75MG	16	63653117101	$29,581.71	Jan-02	4.36%	4.47%	4.43%	2.86%	4.54%	4.66%	4.61%	2.98%
PREVACID 30MG	7	00300304613	$62,021.56	Jan-02	3.99%	3.95%	3.93%	2.53%	4.14%	4.10%	4.08%	2.63%
WELLBUTRIN SR 150MG	11	00173013555	$47,743.43	Jan-02	3.83%	4.05%	2.96%	1.70%	3.97%	4.20%	3.07%	1.76%

Table 2: Summary of the Mark-Up Inflation Found in the Cigna Claims Data

Drug	Rank	NDC	Cigna Volume	Date of Ratio Change	Change in Price Paid/WAC After Ratio Change				Percentage Change in Price Paid/WAC After Ratio Change			
					Period 1 Actual - But For	Period 2 Actual - But For	Period 3 Actual - But For	Period 4 Actual - But For	Period 1	Period 2	Period 3	Period 4
A. Dr. Willig's Results												
LIPITOR 10MG	2	00071015523	$131,687,911.73	Jan-02	3.33%	3.25%	2.94%	2.46%	3.22%	3.15%	2.85%	2.38%
LIPITOR 20MG	4	00071015623	$122,477,699.60	Jan-02	3.70%	3.82%	3.32%	3.35%	3.63%	3.75%	3.26%	3.29%
PLAVIX 75MG	17	63653117101	$49,300,831.66	Jan-02	4.92%	5.24%	4.53%	4.49%	4.91%	5.23%	4.51%	4.48%
PREVACID 30MG	1	00300304613	$291,824,393.79	Jan-02	3.68%	3.93%	3.79%	4.29%	3.66%	3.92%	3.78%	4.28%
WELLBUTRIN SR 150MG	7	00173013555	$90,000,905.58	Jan-02	3.06%	3.52%	2.81%	2.98%	2.98%	3.44%	2.75%	2.91%

Table 3: Average Monthly Discounts and Dispensing Fees for GE

GE Drug Label	Rank	NDC	GE Volume	Date of Ratio Change	Average Monthly Discount off AWP					Average Monthly Dispensing Fee by Pill				
					Period Before	Period 1	Period 2	Period 3	Period 4	Period Before	Period 1	Period 2	Period 3	Period 4
A. Dr. Willig's Results														
LIPITOR 10MG	3	00071015523	$321,174.24	Jan-02	14.58%	15.26%	15.23%	15.30%	16.68%	$0.05	$0.05	$0.05	$0.05	$0.05
LIPITOR 20MG	5	00071015623	$273,763.04	Jan-02	13.98%	15.12%	15.10%	16.07%	17.18%	$0.05	$0.05	$0.05	$0.04	$0.04
PLAVIX 75MG	40	63653117101	$55,589.31	Jan-02	15.96%	14.95%	16.53%	17.45%	17.25%	$0.05	$0.06	$0.04	$0.03	$0.04
PREVACID 30MG	1	00300304613	$375,220.23	Jan-02	13.22%	14.24%	13.89%	14.49%	15.74%	$0.06	$0.05	$0.06	$0.05	$0.05
WELLBUTRIN SR 150MG	11	00173013555	$178,069.08	Jan-02	13.97%	14.32%	14.86%	15.70%	16.69%	$0.03	$0.03	$0.03	$0.03	$0.03
B. Retail Only Claims														
LIPITOR 10MG	3	00071015523	$225,915.66	Jan-02	12.69%	13.07%	13.06%	13.07%	14.22%	$0.07	$0.07	$0.07	$0.07	$0.07
LIPITOR 20MG	6	00071015623	$166,295.80	Jan-02	11.26%	11.99%	12.25%	12.80%	13.94%	$0.07	$0.07	$0.07	$0.07	$0.07
PLAVIX 75MG	64	63653117101	$26,007.60	Jan-02	12.69%	12.71%	12.72%	13.24%	14.04%	$0.08	$0.08	$0.08	$0.07	$0.07
PREVACID 30MG	2	00300304613	$313,198.67	Jan-02	12.34%	13.10%	12.97%	13.16%	14.03%	$0.06	$0.06	$0.06	$0.06	$0.06
WELLBUTRIN SR 150MG	12	00173013555	$130,325.65	Jan-02	12.41%	12.55%	12.51%	13.64%	13.80%	$0.04	$0.04	$0.04	$0.04	$0.04
C. Mail Order Only Claims														
LIPITOR 10MG	5	00071015523	$95,258.58	Jan-02	20.00%	20.11%	20.00%	20.05%	21.30%	$0.01	$0.01	$0.01	$0.01	$0.01
LIPITOR 20MG	2	00071015623	$107,467.24	Jan-02	20.00%	20.09%	20.00%	20.08%	21.00%	$0.01	$0.01	$0.01	$0.01	$0.01
PLAVIX 75MG	16	63653117101	$29,581.71	Jan-02	20.80%	20.00%	20.00%	20.00%	21.00%	$0.01	$0.01	$0.01	$0.01	$0.01
PREVACID 30MG	7	00300304613	$62,021.56	Jan-02	20.00%	20.00%	20.07%	20.10%	21.00%	$0.01	$0.01	$0.01	$0.01	$0.00
WELLBUTRIN SR 150MG	11	00173013555	$47,743.43	Jan-02	20.00%	20.18%	20.00%	20.82%	21.56%	$0.01	$0.01	$0.01	$0.01	$0.00

Table 4.a: Damages on GE Claims for Drugs in Willig Subset

	NDC	Drug	02Q1	02Q2	02Q3	02Q4	03Q1	03Q2	03Q3	03Q4	04Q1	04Q2	Total
Mail Order	00071015523	LIPITOR	$255	$400	$357	$385	$346	$295	$215	$262	$239	$108	$2,863
	00071015623	LIPITOR	$308	$331	$375	$376	$407	$472	$299	$278	$361	$124	$3,330
	00173013555	WELLBUTRIN SR	$182	$151	$214	$195	$184	$192	$126	$93	$95		$1,431
	00300304613	PREVACID	$258	$183	$170	$216	$159	$325	$179	$161	$185	$36	$1,873
	63653117101	PLAVIX	$46	$57	$118	$126	$140	$128	$63	$86	$104	$46	$913
		Total	**$1,049**	**$1,121**	**$1,235**	**$1,297**	**$1,236**	**$1,411**	**$882**	**$881**	**$985**	**$315**	**$10,411**
Retail	00071015523	LIPITOR	$734	$788	$924	$715	$681	$726	$445	$486	$474	$148	$6,121
	00071015623	LIPITOR	$587	$530	$575	$678	$483	$406	$238	$195	$191	$63	$3,947
	00173013555	WELLBUTRIN SR	$584	$467	$464	$430	$384	$426	$277	$109	$97	$10	$3,247
	00300304613	PREVACID	$978	$924	$1,138	$1,192	$992	$877	$461	$433	$487	$169	$7,651
	63653117101	PLAVIX	$94	$94	$83	$101	$71	$65	$54	$52	$49	$8	$670
		Total	**$2,977**	**$2,803**	**$3,184**	**$3,115**	**$2,611**	**$2,500**	**$1,475**	**$1,276**	**$1,298**	**$397**	**$21,636**
Total	00071015523	LIPITOR	$990	$1,188	$1,281	$1,099	$1,028	$1,021	$660	$749	$714	$255	$8,984
	00071015623	LIPITOR	$895	$861	$950	$1,054	$890	$877	$538	$473	$552	$188	$7,278
	00173013555	WELLBUTRIN SR	$766	$618	$678	$624	$567	$618	$402	$202	$192	$10	$4,678
	00300304613	PREVACID	$1,236	$1,107	$1,308	$1,407	$1,152	$1,202	$640	$594	$672	$205	$9,524
	63653117101	PLAVIX	$139	$151	$201	$226	$210	$194	$117	$138	$153	$54	$1,583
		Total	**$4,026**	**$3,924**	**$4,418**	**$4,412**	**$3,847**	**$3,911**	**$2,357**	**$2,156**	**$2,284**	**$712**	**$32,047**

Notes:

1. AA = Ingredient Cost. Note that these damages calculations do not include the dispensing fee.
2. But-for AA/WAC for all claims beginning in January 2002 = simple average of AA/WAC for all claims in Q42001.
3. For all claims beginning in January 2002, damages are calculated as (([Actual AA/WAC] - [But-for AA/WAC])/ [Actual AA/WAC]) * (Ingredient Cost).
4. Damages are summarized by NDC by quarter by mail order and retail.
5. Q2 2004 summarizes only one month of data, April 2004.

Table 4.b: Total Dollar Volume on GE Claims for Drugs in Willig Subset

	NDC	Drug	02Q1	02Q2	02Q3	02Q4	03Q1	03Q2	03Q3	03Q4	04Q1	04Q2	Total
Mail Order	00071015523	LIPITOR	$6,734	$10,558	$9,422	$10,142	$9,493	$8,099	$8,254	$9,870	$8,718	$3,919	$85,210
	00071015623	LIPITOR	$7,772	$8,339	$9,621	$9,662	$10,260	$11,893	$10,881	$10,103	$13,681	$4,710	$96,921
	00173013555	WELLBUTRIN SR	$4,619	$3,907	$6,023	$5,471	$4,892	$4,972	$4,767	$3,517	$3,571		$41,740
	00300304613	PREVACID	$6,790	$4,812	$4,491	$5,639	$4,111	$8,392	$6,780	$6,102	$7,006	$1,363	$55,485
	63653117101	PLAVIX	$1,136	$1,420	$2,935	$3,124	$3,643	$3,340	$2,398	$3,298	$3,882	$1,725	$26,901
		Total	**$27,051**	**$29,036**	**$32,491**	**$34,039**	**$32,399**	**$36,697**	**$33,081**	**$32,890**	**$36,858**	**$11,717**	**$306,257**
Retail	00071015523	LIPITOR	$19,869	$21,046	$24,085	$22,046	$19,453	$20,423	$17,586	$18,966	$17,941	$5,566	$186,980
	00071015623	LIPITOR	$13,396	$14,924	$17,529	$18,388	$14,745	$14,703	$13,746	$12,827	$14,002	$4,401	$138,661
	00173013555	WELLBUTRIN SR	$13,638	$13,396	$13,879	$13,298	$12,503	$14,215	$9,493	$5,853	$5,094	$500	$101,869
	00300304613	PREVACID	$28,066	$27,824	$34,669	$36,952	$30,402	$26,720	$22,601	$20,421	$23,321	$7,842	$258,818
	63653117101	PLAVIX	$2,431	$2,480	$2,171	$2,806	$2,247	$2,089	$2,610	$2,555	$2,272	$352	$22,012
		Total	**$77,399**	**$79,670**	**$92,333**	**$93,489**	**$79,351**	**$78,151**	**$66,036**	**$60,623**	**$62,630**	**$18,662**	**$708,342**
Total	00071015523	LIPITOR	$26,603	$31,604	$33,507	$32,188	$28,946	$28,522	$25,840	$28,836	$26,660	$9,485	$272,191
	00071015623	LIPITOR	$21,168	$23,262	$27,150	$28,050	$25,005	$26,596	$24,627	$22,930	$27,683	$9,111	$235,583
	00173013555	WELLBUTRIN SR	$18,257	$17,303	$19,902	$18,769	$17,395	$19,188	$14,260	$9,370	$8,665	$500	$143,609
	00300304613	PREVACID	$34,855	$32,636	$39,160	$42,591	$34,513	$35,112	$29,381	$26,523	$30,327	$9,205	$314,303
	63653117101	PLAVIX	$3,567	$3,900	$5,105	$5,930	$5,890	$5,429	$5,009	$5,853	$6,153	$2,077	$48,913
		Total	**$104,450**	**$108,705**	**$124,824**	**$127,528**	**$111,750**	**$114,847**	**$99,116**	**$93,512**	**$99,488**	**$30,378**	**$1,014,599**

Notes:

1. Total Dollar Volume = AA = Ingredient Cost.
2. Total Dollar Volume is summarized by NDC by quarter by mail order and retail.
3. Q2 2004 summarizes only one month of data, April 2004.

Table 4.c: Ratio of Damages to Total Dollar Volume on GE Claims for Drugs in Willig Subset

	NDC	Drug	02Q1	02Q2	02Q3	02Q4	03Q1	03Q2	03Q3	03Q4	04Q1	04Q2	All
Mail Order	00071015523	LIPITOR	3.79%	3.79%	3.79%	3.79%	3.65%	3.64%	2.61%	2.66%	2.75%	2.75%	3.36%
	00071015623	LIPITOR	3.97%	3.97%	3.89%	3.89%	3.96%	3.97%	2.75%	2.75%	2.64%	2.64%	3.44%
	00173013555	WELLBUTRIN SR	3.94%	3.86%	3.56%	3.56%	3.76%	3.85%	2.64%	2.64%	2.67%		3.43%
	00300304613	PREVACID	3.80%	3.80%	3.80%	3.83%	3.88%	3.87%	2.64%	2.64%	2.64%	2.67%	3.38%
	63653117101	PLAVIX	4.02%	4.02%	4.02%	4.02%	3.83%	3.83%	2.62%	2.62%	2.69%	2.69%	3.40%
		All	**3.88%**	**3.86%**	**3.80%**	**3.81%**	**3.81%**	**3.85%**	**2.67%**	**2.68%**	**2.67%**	**2.68%**	**3.40%**
Retail	00071015523	LIPITOR	3.70%	3.74%	3.84%	3.24%	3.50%	3.55%	2.53%	2.56%	2.64%	2.65%	3.27%
	00071015623	LIPITOR	4.38%	3.55%	3.28%	3.69%	3.28%	2.76%	1.73%	1.52%	1.36%	1.44%	2.85%
	00173013555	WELLBUTRIN SR	4.28%	3.49%	3.34%	3.23%	3.07%	3.00%	2.91%	1.86%	1.90%	1.90%	3.19%
	00300304613	PREVACID	3.48%	3.32%	3.28%	3.22%	3.26%	3.28%	2.04%	2.12%	2.09%	2.16%	2.96%
	63653117101	PLAVIX	3.86%	3.78%	3.80%	3.59%	3.15%	3.13%	2.08%	2.03%	2.16%	2.17%	3.04%
		All	**3.85%**	**3.52%**	**3.45%**	**3.33%**	**3.29%**	**3.20%**	**2.23%**	**2.10%**	**2.07%**	**2.13%**	**3.05%**
Total	00071015523	LIPITOR	3.72%	3.76%	3.82%	3.41%	3.55%	3.58%	2.55%	2.60%	2.68%	2.69%	3.30%
	00071015623	LIPITOR	4.23%	3.70%	3.50%	3.76%	3.56%	3.30%	2.18%	2.06%	2.00%	2.06%	3.09%
	00173013555	WELLBUTRIN SR	4.20%	3.57%	3.41%	3.33%	3.26%	3.22%	2.82%	2.16%	2.22%	1.90%	3.26%
	00300304613	PREVACID	3.55%	3.39%	3.34%	3.30%	3.34%	3.42%	2.18%	2.24%	2.22%	2.23%	3.03%
	63653117101	PLAVIX	3.91%	3.87%	3.93%	3.82%	3.57%	3.56%	2.33%	2.36%	2.49%	2.60%	3.24%
		All	**3.85%**	**3.61%**	**3.54%**	**3.46%**	**3.44%**	**3.41%**	**2.38%**	**2.31%**	**2.30%**	**2.34%**	**3.16%**

Notes:

1. Q2 2004 summarizes only one month of data, April 2004.

Table 5.a: Damages on Cigna Claims for Drugs in Willig Subset

NDC	Drug	02Q1	02Q2	02Q3	02Q4	03Q1	03Q2	03Q3	03Q4	04Q1	04Q2	04Q3	Total
00071015523	LIPITOR	$319,267	$410,863	$398,872	$350,660	$349,281	$349,303	$302,632	$343,617	$246,707	$280,203	$7,861	$3,359,266
00071015623	LIPITOR	$323,894	$377,874	$381,225	$415,150	$365,010	$387,708	$394,738	$404,575	$318,889	$349,899	$11,446	$3,730,408
00173013555	WELLBUTRIN SR	$170,691	$235,741	$299,426	$285,141	$161,789	$320,542	$317,114	$169,484	$163,667	$38,077	$733	$2,162,405
00300304613	PREVACID	$698,553	$803,109	$890,486	$899,140	$918,211	$761,192	$894,495	$1,041,337	$747,991	$657,729	$24,913	$8,337,155
63653117101	PLAVIX	$54,894	$80,708	$89,510	$98,893	$82,715	$90,244	$98,003	$100,328	$49,828	$80,620	$1,325	$827,069
	Total	**$1,567,300**	**$1,908,294**	**$2,059,519**	**$2,048,984**	**$1,877,006**	**$1,908,990**	**$2,006,983**	**$2,059,341**	**$1,527,082**	**$1,406,528**	**$46,278**	**$18,416,304**

Notes:

1. AA = Ingredient Cost. Note that these damages calculations do not include the dispensing fee.
2. But-for AA/WAC for all claims beginning in January 2002 = simple average of AA/WAC for all claims in Q42001.
3. For all claims beginning in January 2002, damages are calculated as (([Actual AA/WAC] - [But-for AA/WAC])/ [Actual AA/WAC]) * (Ingredient Cost).
4. Damages are summarized by NDC by quarter.
5. Q3 2004 summarizes only one month of data, July 2004.

Table 5.b: Total Dollar Volume on Cigna Claims for Drugs in Willig Subset

NDC	Drug	02Q1	02Q2	02Q3	02Q4	03Q1	03Q2	03Q3	03Q4	04Q1	04Q2	04Q3	Total
00071015523	LIPITOR	$10,935,119	$11,367,432	$11,388,358	$11,768,613	$11,269,068	$11,276,808	$11,441,955	$11,776,087	$10,729,423	$10,767,098	$389,574	$113,109,534
00071015623	LIPITOR	$9,418,733	$9,850,854	$10,233,931	$10,780,988	$10,702,173	$11,085,181	$11,075,865	$11,622,004	$10,539,729	$10,800,029	$398,939	$106,508,425
00173013555	WELLBUTRIN SR	$7,252,441	$8,067,478	$8,953,572	$9,813,359	$9,531,707	$9,630,739	$9,423,719	$8,101,632	$5,872,006	$1,101,049	$25,955	$77,773,656
00300304613	PREVACID	$24,181,358	$25,151,322	$26,278,610	$28,230,490	$26,271,762	$26,055,070	$25,984,928	$25,783,922	$20,900,818	$20,416,988	$769,128	$250,024,394
63653117101	PLAVIX	$2,972,434	$3,337,552	$3,681,333	$4,034,690	$4,368,165	$4,792,607	$5,057,765	$5,474,502	$5,318,892	$5,614,790	$241,635	$44,894,364
	Total	**$54,760,086**	**$57,774,637**	**$60,535,804**	**$64,628,139**	**$62,142,874**	**$62,840,404**	**$62,984,232**	**$62,758,147**	**$53,360,868**	**$48,699,953**	**$1,825,231**	**$592,310,373**

Notes:

1. Total Dollar Volume = AA = Ingredient Cost.
2. Total Dollar Volume is summarized by NDC by quarter.
3. Q3 2004 summarizes only one month of data, July 2004.

Table 5.c: Ratio of Damages to Total Dollar Volume on Cigna Claims for Drugs in Willig Subset

NDC	Drug	02Q1	02Q2	02Q3	02Q4	03Q1	03Q2	03Q3	03Q4	04Q1	04Q2	04Q3	All
00071015523	LIPITOR	2.92%	3.61%	3.50%	2.98%	3.10%	3.10%	2.64%	2.92%	2.30%	2.60%	2.02%	2.97%
00071015623	LIPITOR	3.44%	3.84%	3.73%	3.85%	3.41%	3.50%	3.56%	3.48%	3.03%	3.24%	2.87%	3.50%
00173013555	WELLBUTRIN SR	2.35%	2.92%	3.34%	2.91%	1.70%	3.33%	3.37%	2.09%	2.79%	3.46%	2.82%	2.78%
00300304613	PREVACID	2.89%	3.19%	3.39%	3.18%	3.50%	2.92%	3.44%	4.04%	3.58%	3.22%	3.24%	3.33%
63653117101	PLAVIX	1.85%	2.42%	2.43%	2.45%	1.89%	1.88%	1.94%	1.83%	0.94%	1.44%	0.55%	1.84%
	All	2.86%	3.30%	3.40%	3.17%	3.02%	3.04%	3.19%	3.28%	2.86%	2.89%	2.54%	3.11%

Notes:
1. Q3 2004 summarizes only one month of data, July 2004.

Table 6: Summary of Tests Imposing the Assumption of the Same Systematic Effects Across All Drugs

Data Source	Number of Obs	Number of Drugs	Number of Periods	Intercept	Slope	F Value	Source
IMS	11,398	278	41	0.96939 *1146.73*	-0.00008599 *-2.45*	6.01	Hartman 9/18/07, Exhibit F.1.a
GE Willig	4,590	135	34	0.89766 *604.66*	-0.00079957 *-10.81*	116.76	Willig Table 8
GE Retail	4,216	124	34	0.91366 *685.37*	-0.00067985 *-10.23*	104.68	Hartman Analysis
GE Home Delivery	442	13	34	0.80677 *539.49*	-0.0004876 *-6.54*	42.79	Hartman Analysis
Cigna	13,542	366	37	0.85781 *985.24*	-0.00029218 *-7.31*	53.48	Willig Table 9

Table 7: Summary of Individual versus Common Intercepts and Slopes

					Summary of Individual Slopes			Tests for common trend and common intercept	
Data Source	Number of Obs	Number of Drugs	Number of Periods	Method	Negative and Significant	Positive and Significant	Insignificant	F-test	Null Ho:
IMS	11,398	278	41	OLS	61	32	185	194.58	Rejected
				WHITE	89	40	149	430.95	Rejected
				PCSE	82	35	161		
GE Willig	4,590	135	34	OLS	45	5	85	26.29	Rejected
				WHITE	80	7	48	59.64	Rejected
				PCSE	80	7	48		
GE Retail	4,216	124	34	OLS	40	2	82	31.27	Rejected
				WHITE	99	2	23	86.18	Rejected
				PCSE	102	2	20		
GE Home Delivery	442	13	34	OLS	12	0	1	23.35	Rejected
				WHITE	11	0	2	7.73	Rejected
				PCSE	11	0	2		
Cigna	13,542	366	37	OLS	80	20	266	59.97	Rejected
				WHITE	181	21	164	89.45	Rejected
				PCSE	179	23	164		

Attachment D

ATTACHMENT D
THE FAILURES OF DR. WILLIG'S MOST RECENT ARGUMENTS TO DEFEAT MY DAMAGE ANALYSIS AND CALCULATIONS

1. In ¶ 8 of his October 2007 Declaration, Dr. Willig broadly summarizes his criticisms of my analysis. I quote these criticisms in full, with some annotation from other parts of his Declaration.

a) "Dr. Hartman mischaracterizes my opinions regarding class certification by incorrectly claiming that my position is that the increase in the AWP/WAC ratio had zero impact on all class members." He continues "I never concluded that there was zero impact of the change in AWP/WAC ratio" (¶ 12). He concludes "My opinion is that determination of impact and damages requires an individualized analysis. This opinion is supported by economic logic and the empirical evidence in this case."

b) "Dr. Hartman is incorrect in contending that there is no competition among PBMs. Further, if his argument were true that PBMs that are vertically integrated with mail order pharmacies were somehow able to retain excess profits received as a result of the alleged scheme, this would only raise an additional individual issue further undermining the validity of class certification."

c) "Dr. Hartman's use of IMS data does not support his argument that there was no recoupment by TPPs. Evidence from the IMS data is consistent with the proposition that PBMs were able to squeeze excess profits from pharmacies and the extent to which those excess profits were passed onto the TPPs is a factual issue not addressed in Dr. Hartman's report."

d) "In the January 2007 Willig Report and the May 2007 Willig Declaration, I understood the claim of harm to the consumer class to derive from co-insurance payments that were a percentage of the reimbursement paid by the TPP. Dr. Hartman addressed the consumer class using the same methodology as the TPP class. Therefore, I also assumed that impact and damages to the consumer class were derivative of impact and damages to the TPP class. Dr. Hartman and I agree that the same reasoning that led the Court to deny certification of damages for the TPP class applies equally to the consumer class."

e) "Dr. Hartman fails to meet the Court's invitation to propose a feasible aggregate damages methodology that does not overstate damages. In particular, Dr. Hartman provides no methodology for distinguishing TPP transactions under previously negotiated contracts from TPP transactions under contracts negotiated after the change in AWP/WAC ratios. Simply presenting damages on an annual basis does not address the shortcomings of his aggregate damages methodology because the problems present in his methodology over the 3.5 year class period are equally present when he uses the same methodology to calculate damages for one and two year periods. In sum, Dr. Hartman's one year and two year methodologies overstate aggregate damages."

2. Other criticisms that he makes are the following:

a) Dr. Willig puts forward a variety of statistical analyses which he incorrectly asserts undermine my statistical analysis. His analyses are incorrect and his rebuttal fails.

b) Dr. Willig improperly attributes theories to me that I have never articulated and that he seems to have concocted. He then claims to rebut them. Since I have never made such claims nor espoused such theories, I do not assess whether he has rebutted them.

3. Each of his criticisms fails; each of his assertions is false; each of his falsely attributed theories has no relevance or merit. Let me address each.

A. I have not mischaracterized Dr. Willig's opinions. He has indeed asserted that the increase in the AWP/WAC ratio had zero impact on all class members. Furthermore, his argument fails that individualized analysis is required.

4. At his ¶ 11, Dr. Willig asserts "Throughout the September 2007 Hartman Declaration, Dr. Hartman mischaracterizes my opinions in various ways. Most importantly, he incorrectly claims that my opinion is that the spread resulted in zero impact for all TPPs. For example, Dr. Hartman states, '[p]ut simply, Defendant's counsel and their Expert Dr. Willig conclude that ***the 5% Scheme simply would not work, could not work and did not work*** because all TPPs knew and 'pushed-back' against inflation induced by the Scheme.' My opinion is not zero impact for all TPPs" (emphasis added).

5. Let's examine more closely the assertions made by Defendants' Counsel and Dr. Willig to date:

a) Mr. Goldman has argued to the Court as follows:

"[Plaintiffs] say, oh, no, nobody knew the 'scheme.' You know, they disguise it in the word 'scheme,' and you're onto that, your Honor. It's not nobody knew about the differential went up because they all did. ***They all knew, they all were told***… [because] … the AWP and the WAC … are published. … Here is the point, your Honor … Here's only our proposition, and we show this from the PBM. We show it from what Berndt said will happen among vigorous competition among PBMs. ***The PBMs all knew it. They knew this difference occurred. They told the TPPs this. I want to emphasize that they told them that***" (emphasis added).[1]

b) Dr. Willig has asserted in his testimony:

"My analysis of the role of PBMs in the self-administered branded prescription drug distribution business shows that PBMs facilitate the operation of market mechanisms that ***cause TPP reimbursement rates to return to or retain their***

[1] See my September 2007 Declaration, Attachment D, ¶ 3.

levels that prevailed prior to the artificial change following the change in the AWP/WAC ratio and artificial inflation in AWP" (emphasis added).[2]

c) Dr. Willig puts forward an analysis that purports to demonstrate that the plaintiffs were better off as a result of the 5% Mark-Up Scheme.[3] McKesson's Counsel has made the same argument before this Court.[4]

d) Dr. Willig reaffirms this opinion when he asserts "There is no economically meaningful reason why the character of the dynamics of the responses to the settlement would differ significantly from responses to the AWP/WAC ratio change."[5] In this reference, he is comparing the market response to the very public announcement of the *FDB Settlement Agreement* in this matter relative to the market response to the conspiracy that FDB and McKesson aggressively attempted to keep secret and that the evidence indicates very few PBMs and TPPs knew about.

6. It is difficult for me to understand how I have mischaracterized Dr. Willig's opinions or those of McKesson's Counsel. According to Mr. Goldman, all TPPs knew because all PBMs knew and they told the TPPs. According to Dr. Willig, PBM competition will "cause TPP reimbursement rates to return to or retain their levels that prevailed prior to the artificial change following the change in the AWP/WAC ratio and artificial inflation in AWP" (Willig January 2007 Declaration ¶ 43). According to Dr. Willig, PBM and TPP competitive reaction to the secret Scheme would be precisely the same as if the Scheme had been made public and bruited in the press. This latter assertion puts a heavy burden on the "invisible hand" of competition. Indeed, according to both Dr. Willig and McKesson's Counsel, TPPs may have been made better off by the Scheme. This latter conjecture is clearly implausible. If true, the Court should conclude that as a matter of public policy, it may be economically beneficial to induce certain economic entities to enter into price-fixing schemes because such schemes will make consumers and related businesses better off.

7. ***I have certainly not mischaracterized McKesson's or Dr. Willig's earlier stated positions.*** I agree with Dr. Willig that we must look to economic theory and empirical results to determine impact injury and damages. That is exactly what I have done. I find that the proposed Classes were impacted, injured and damaged economically as a result of the Scheme; the damages varied over time; standard economic methods and generally accepted survey data allow me to accurately calculate aggregate Class-wide damages.

8. Indeed, it would seem to me that Dr. Willig has changed his opinion. At ¶ 16 of his October 2007 Declaration, he asserts, "It is true that if there were perfect competition among PBMs, then there likely would be complete mitigation for all TPPs. But, as

[2] Willig January 2007 Declaration, ¶ 43.

[3] Willig January 2007 Declaration, ¶ 82.

[4] Ms. Schechter makes this argument to the Court in re Covenant Health at page 27 of the *Motion/Status Hearing.*

[5] Willig January 2007 Declaration, ¶ 40.

stressed above, that is not my opinion." As demonstrated in his opinion in January, 2007 (¶ 52.b), ***that was his opinion;*** Dr. Willig expected complete mitigation for "***TPP reimbursement rates***" without any stated exception. His opinion has clearly changed.

B. Dr. Willig seriously mischaracterizes my testimony when he asserts I "contend … that there is no competition among PBMs."

9. Dr. Willig begins this criticism, which he expands throughout his Declaration, as follows: "Dr. Hartman is incorrect in contending that there is no competition among PBMs."

10. I have never made this contention. I have opined throughout my testimony in this matter and in the AWP MDL matter, whether addressed explicitly or implicitly, that there is competition among PBMs but that the competition simply is not "fierce." I have explained in my September 2007 Declaration (I cite the appropriate ¶) why it is not fierce.

a) "While PBMs do compete for the business of TPPs, ***PBM competition is not fierce.*** That is not how PBMs, and the corporate entities that own PBMs, maximize profits. There is nuance to PBM competition. To accept McKesson's notion of competition in simple homogenous product markets as characterizing competition among PBMs is to miss that nuance and to countenance the injury of this Scheme" (¶ 62).

b) "There are a variety of theoretical and institutional reasons explaining why competition is not fierce among PBMs.

- Those PBMs that were most likely to have uncovered the increased Spreads induced by the Scheme are large and part of health care services conglomerates. Indeed the three PBMs introduced by McKesson are the three largest in the country; see Attachment E. ***These conglomerates maximize overall profits over all lines of business, not just over their PBM line of business.*** This fact, which I develop more fully below, constrains PBM competition for TPP business.

- However, let me ignore this corporate-wide strategic constraint for the moment and focus on PBM competition for TPP business. This competition differs from that in markets where consumers and producers make purchase decisions for themselves. In the market of interest here, PBMs compete to be the 'agent' of the TPP. It is well-known that an 'agency' problem or a 'principal-agent' problem can arise in these markets. The TPP hires the PBM to act as its representative (its agent) to perform a variety of drug-benefit-plan management activities. The TPP pays an administrative fee, as incentive, to its agent, the PBM, to perform these activities. However, if the PBM earns, as incentive, more income from other sources, such as drug manufacturer rebates and/or payments from retail chains seeking to participate in the PBM network, it is likely that the PBM will be less concerned with its duties to its principal (the TPP) than it will be concerned with satisfying the strategic needs of those other entities.

- As a result, the 'principal-agent' problem arises; the PBM will not properly act to solely reflect, protect and compete for the economic interests of the principals (i.e., the Class members) retaining it to perform contracted activities. As a result, competitive motives and behaviors are blunted" ((¶¶ 63.a) - 63.c)).
- See also ¶¶ 63.d)-63.f), 64 and 65 of my September 2007 Declaration.

c) "When analyzing impact, injury and calculating damages induced by the Scheme, it is necessary to take account of all drug-specific competitive factors that determine changing patterns of AA/AWP and AA/WAC, in addition to the Scheme" (¶ 36.a).

11. Dr. Willig exaggerates my position in his ¶ 14: "Dr. Hartman rejects the Court's statement that '[c]ompetition among PBMs for the business of TPPs is fierce.' Instead, Dr. Hartman contends that PBMs benefited from the alleged scheme through their mail order and retail pharmacy businesses and, enabled by the lack of 'fierce' competition, had no incentive to inform TPPs of the alleged scheme or to mitigate the impact upon them."

12. I agree with this description with the following qualifications. I do not reject the Court's statement; rather I respectfully disagree, as a matter of economics and the evidence. Furthermore, I do not contend that PBMs had "no incentive to inform TPPs of the alleged scheme." I contend that PBMs had a variety of incentives, and as profit-maximizing entities the PBMs found the incentive to inform TPPs less important than the profits made in other lines of business as a result of the alleged scheme.

13. Dr. Willig continues to elaborate his opinion (in ¶¶ 14 and 15), taking it to an illogical mischaracterization easily rebutted by my testimony to date. Specifically, he asserts "Dr. Hartman needs this new theory to support his position that there were no market responses to the change in the AWP/WAC ratio for the full class period. Dr. Hartman's presentation asserts that PBM competition is not 'fierce,' and then proceeds under the presumption that there is no competition at all among PBMs."

a) My theory is not new; I have always found PBM competition for TPPs' business to be nuanced and compromised by a variety of profit-maximizing motives and opportunities. That is the entire basis for the principal-agent problem arising in PBM/TPP contractual arrangements, as discussed in Attachment E of my September 2007 Declaration in this matter.

b) I addressed this specific principal-agent problem in the same way as I do here in September 2004 in the AWP MDL matter (Attachment C to that Declaration).

c) The principal-agent problem is particularly serious in this matter for two reasons: the benefits designed by McKesson to profit retailers significantly profited PBMs' mail order and retail pharmacies; and the Scheme was so well secreted that only two PBMs and one or two TPPs knew of it.

d) I also clearly do not contend that there was "no market response to the change in the AWP/WAC ratio for the full class period [nor do I presume] that there is no competition at all among PBMs," ***since my detailed statistical analysis demonstrates that there were variations in the market response to the***

Scheme, by drug and by month. I have explicitly discussed them in my September 2007 Declaration and its Attachment F. Dr. Willig simply has no basis to claim that I have imposed a zero or "no market response."[6] My detailed statistical analysis of market-wide (IMS) transactions demonstrates that the variations that did occur did not mitigate or push-back the adverse impacts of the Scheme to the Class members. My detailed statistical analysis of the claims data (for GE and CIGNA) introduced by Dr. Willig confirms my market-wide analysis.

14. Finally, I find that despite all of the apparent disagreement regarding the measurement of the effects of the competition, Dr. Willig and I do agree as to the nature of the competition that exists among PBMs for TPP business. Specifically, after claiming earlier that competition would dissipate the effects of the Scheme (see my ¶¶ 52 & 53 above), Dr. Willig refines his opinion (in ¶ 16 of his October 2007 Declaration) as follows: "Rather, my opinion is that PBM competition for TPP business occurs through bargaining relationships (a concept Dr. Hartman recognizes), and that the degree of mitigation depends on the information and relative bargaining power in each of those relationships."

15. But that is precisely the opinion I have put forward in September 2007 at my ¶¶ 63.d) & 63.e):

a) "Furthermore, the principal-agent agreement results reflect complex bargaining equilibria rather than simple price competition for a single product. Economic models of bargaining better describe this competition. For example, in a Nash or Roth-Nash model of bargaining, the "reservation" position of each bargaining party (that is, the economic position that party could achieve if no agreement were reached) is relevant to determining the outcome of a bargain. Here, if a TPP bargaining with a PBM believed the PBM were forgoing profits of X by not striking a deal, the outcome would be different than if the TPP thought the PBM were forgoing profits of 10X. In particular, ***the TPP would bargain more aggressively if it thought the PBM had more to lose.***

b) Thus, to the extent that the level of overall profits that a PBM will earn on a contract is unobservable, the PBM can negotiate a more favorable contract and, even in the presence of competition, earn substantial margins. ***Thus, it is in the PBM's self-interest to keep unobservable, or to hide, an increase in profits due to a particular event or set of events (such as the Scheme), when those profits are being earned at the expense of TPPs, which is the case here.*** This fact certainly explains why the ESI letter was so vague and uninformative about

[6] He further states at his ¶¶ 11 & 12: "In dramatic contrast, it is Dr. Hartman's aggregate damages methodology that relies on the extreme assumption that there was 'zero knowledge – zero mitigation. … In addition I concluded that Dr. Hartman's aggregate damages methodology, which makes the extreme assumption of zero market response for all TPPs, cannot be proven and necessarily overstates damages.'"

To repeat, I do not assume zero response or mitigation. I find very little knowledge of the increase in Spread. However, I allow the data to inform me and my damages calculation of the extent of changes in the discount and dispensing fees for the challenged drugs. I allow the data to inform me and my damages calculations of the degree of mitigation that did occur.

the effects of the Scheme and why it was sent to so few TPPs."

16. We both agree that perfect competition or full mitigation ***does not occur***. We both agree that ***competition for TPP business is imperfect***.[7] We both agree that bargaining equilibria will explain the reimbursement rates agreed to by PBMs and TPPs in their drug benefit plans. I have simply measured the results of those bargaining equilibria, over time and by drug. That is the basis for my calculation of aggregate class-wide damages.

C. Dr. Willig's analysis and conclusions regarding my use of the IMS data reflect a serious misunderstanding of that data and the contractual relationship between PBMs and TPPs. His conclusions are contradicted by the claims data he introduces for GE and CIGNA.

17. The basis for Dr. Willig's criticisms of much of my analysis and my calculation of damages is his assertion that the IMS data are flawed for the purposes at hand. He devotes an entire Section (IV) of his report to these criticisms. However, his criticisms demonstrate a lack of familiarity with the IMS data and a misunderstanding of how PBM/TPP reimbursement payments are related. At times he mischaracterizes the products offered by IMS for the purposes of analysis of the issues at hand.

18. First, it is useful to reflect briefly upon the overall validity of such criticisms. While it is always most desirable to gather payment data from the specific consumers of interest (here TPPs, uninsured cash payors and Medicaid beneficiaries separately), it is usually not possible. Most market data on pricing are gathered at the point of retail. It is highly inefficient and costly to go to the purchasers' places of business (TPPs) or dwelling (cash payors) and ask for proprietary data bases. That is precisely why the IMS survey data are so universally used by academics, the government and the industry. IMS is one of the most widely used and widely recognized data sources used by the industry and academics. It is used universally by manufacturers to develop marketing, promotional and pricing strategies. It is used to predict product penetration at retail and effects of alternative retail pricing strategies. It is used widely in legal cases, focusing on prices at retail, by defendants and plaintiffs. The data are used precisely to measure prices paid at retail by cash payors and TPPs. In Attachment B, I cite a small subset of peer-reviewed scientific papers (many by Dr. Berndt), government reports and other research. Drug manufacturers routinely use these data in their analysis aimed at, but not limited to, measuring, designing and implementing drug pricing strategies, marketing campaigns to gain market share and statutory strategies to improve drug pricing and availability. In all of these cases, the IMS data is felt to be an accurate measure of drug pricing.

19. Hence Dr. Willig's following incorrect assertions are surprising: "There are a number of conceptual, statistical and data problems with Dr. Hartman's analysis that render it meaningless for determining whether there was a market response by TPPs to the increase in AWP/WAC ratio. … First of all, Dr. Hartman relies on IMS data that

[7] See ¶¶ 14-18, Willig October 2007 Declaration.

reflect PBM payments to retail pharmacies, not TPP payments to PBMs, as Dr. Hartman contends (his ¶ 29). … A fundamental error in Dr. Hartman's use of the IMS data is that it relies on survey data that capture transactions at the retail pharmacy level. Therefore, the prices reported by IMS are those paid by the PBM to the pharmacy and do not measure TPP reimbursements. Accordingly, Dr. Hartman misinterprets the results of his analysis because the IMS data do not capture changes in discounts and dispensing fees in the contracts between PBMs and TPPs" (¶ 31). He continues (¶ 32), "The fact is that the IMS NPA data are based on a survey of retail pharmacies, not a survey of TPPs or PBMs. Therefore, the TPP transactions in the data do not reflect 'reimbursement paid by TPPs,' or even the contractual terms between PBMs and TPPs. ... the [IMS] data provide no basis for Dr. Hartman to draw any conclusions about what happened to PBM/TPP contracts, or ultimate prices paid by TPPs, as a result of the alleged scheme."

20. That is quite an indictment of a data set used so universally to analyze precisely what Dr. Willig says cannot be analyzed – TPP reimbursement rates. If these assertions were true, the IMS data would never be used to assess issues related to drug prices. That is not the case.

21. These incorrect assertions, and the heavy reliance which Dr. Willig puts upon them, demonstrates a serious misunderstanding on Dr. Willig's part concerning the standard contractual arrangements between PBMs and TPPs, an issue about which Dr. Willig has opined at length. Since demonstration of this misunderstanding involves somewhat complicated numerical examples, I present that discussion in Attachment E to this Declaration. The Attachment demonstrates the following:

a) The IMS measures the amounts paid at retail by PBMs for the transactions of their TPPs clients. The amounts paid by the TPPs to the PBMs to make the PBMs whole for those retail transactions are almost identical for branded drugs.

b) To the extent that the amount paid by PBMs for the retail transactions of their TPP clients diverge from the amounts paid by the TPPs to the PBMs to make the PBMs whole, the measure of TPP damages calculated using my damage methodology are understated and conservative.

c) Indeed, as I have discussed in Section IV above, my analysis of the claims data that Dr. Willig has introduced corroborate my findings using the IMS data.

22. Dr. Willig continues at his ¶ 30 incorrectly asserting, "Even assuming that Dr. Hartman is correct that the IMS data reflect TPP payments, his conclusion that his statistical analysis proves no 'push-back' is still incorrect. Dr. Hartman's error results primarily from the fact that his IMS data commingle private insurance transactions with Medicaid and cash customer transactions and appear to be based on data that include a substantial portion of invalid observations."

23. The IMS data do provide transactions data for all three groups of payors aggregated together.[8] Hence the measure of mitigation found in the IMS data will summarize the mitigation negotiated market-wide – by TPPs, uninsured cash payors and

[8] I have noted this in my September 2007 Declaration.

Medicaid beneficiaries. There is no problem caused by this aggregation in the calculation of aggregate Class-wide damages and the attribution of any mitigation that has occurred to the TPPs claims. Specifically, I use the IMS data to calculate overall aggregate damages. At the Claims Administration Phase, I will be able to disaggregate those damages into those attributable to uninsured cash payors paying U&C; to Medicaid paying AWP – x% or WAC – y% (depending upon the state statute relevant) and TPPs.[9] The relationship of U&C to AWP has been documented by governmental studies, as I have cited in my September 2007 Declaration. To the extent that there was some mitigation of U&C toward the inflated AWPs, that mitigation is reflected in the IMS claims data. To the extent that there was some mitigation in the amount paid at retail by PBMs for TPPs, that mitigation is reflected (conservatively for damages; see Attachment D) in the IMS data. As with any aggregate Class-wide damage calculation, standard methods and data are available to disaggregate those damages (and whatever mitigation occurred) to TPPs and consumers at the allocation phase. I have implemented such an allocation analysis, upon which Courts have relied, in a variety of matters. Indeed, I have already indicated in this Declaration how I would use TPP claims data, like those put forward by Dr. Willig for GE and CIGNA, to properly undertake an allocation calculation for TPP damages.

D. Dr. Willig has noted my observation that calculation of damages to members of Class 1 paying coinsurance requires the calculation of the damages to the TPPs insuring those members of Class 1. He improperly infers that we agree "that the same reasoning that led the Court to deny certification of damages for the TPP class applies equally to the consumer class."

24. At ¶ 12 of my September 2007 Declaration I observed "calculation of damages to Class 1 requires the calculation of damages to Class 2, since the damages to Class 1 are simply a percentage of the damages (paid as coinsurance) to the TPPs/insurers that insure those consumers. In order for Class 1 to be certified for liability and damages, I (and any economist) require calculation of the damages to the TPPs insuring those consumers."

25. In Section III above, I demonstrated why my aggregate damage calculation is not overstated and, if anything, is conservative for any Damage Period the Court deems appropriate. I have discussed how I will use standard analytic methods and the data commonly used with such methods to allocate damages to TPPs and to uninsured cash payors for any Damage Period the Court deems appropriate. Having done so, I will calculate the damages to Class 1 consumers as a percentage of the damages calculated for Class 2 TPPs.

26. Since I can calculate damages with sufficient accuracy for any period of time, I can attribute damages to Class 1 for any period of time. I understand that the Court has allowed the Damage Period for Class 1 to run through March 2005. I shall have no difficulty accurately calculating damages for Class 1 consumers through that period of time, using the methods put forward above and in my September 2007 Declaration. I

[9] In fact, I have already excluded the volumes attributed to Medicaid in my calculation of aggregate damages. See Attachment F of my September 2007 Declaration.

have already done so in my September 2007 Declaration. Hence, Dr. Willig's assertion that "Dr. Hartman and I agree that the same reasoning that led the Court to deny certification of damages for the TPP class applies equally to the consumer class" should be seen for what it is – a clear mischaracterization and without foundation.

E. Dr. Willig's assertion that I have failed "to meet the Court's invitation to propose a feasible aggregate damages methodology that does not overstate damages" is untrue.

27. I have not failed "to meet the Court's invitation to propose a feasible aggregate damages methodology that does not overstate damages." I have put forward a methodology and explained precisely why it does not overstate damages. Indeed, I have demonstrated that if anything my methodology calculates a conservative measure of damages as I have addressed it in detail in this Declaration.

Since it is impossible for anyone to address individual contracts and their renegotiation on a Class-wide basis, I have made use of IMS transaction data that reflect all contract renegotiations and their impacts upon the contracted amounts paid by members of Classes 1 and 2 as well as amounts paid by my Proposed Class 3 for the drugs at issue here. I have provided the Court with a methodology that is accurate, regardless of the length of the damage period deemed appropriate.

F. Dr. Willig makes a variety of statistical errors in his use of the GE and CIGNA claims data. He draws improper conclusions regarding his statistical evidence. He makes incorrect assertions regarding my econometric analysis of the IMS data.

28. As I have discussed in Section III in the text of this Declaration, Dr. Willig has drawn improper conclusions regarding mitigation over the aggregation of claims for GE and CIGNA. I was able to analyze more closely Dr. Willig's findings for GE and demonstrated that they are flawed because he aggregates mail-order and retail pharmacy claims together. When disaggregated, I find results that are consistent with those that I found for the aggregation of cash paying consumers and TPPs (through their PBMs). See Table 1 in the text of this Declaration and Tables 1 and 2 in Attachment C. Table 3 of Attachment C further clarifies the errors in Dr. Willig's analysis for GE. For example, if we look at the increasing discounts off AWP, some are quite large – say for Wellbutrin SR 150 mg. However, this finding is an artifact of the different discounts offered for mail order and retail pharmacy and the shift in the mix between the two. Note that for Wellbutrin SR 150, the increase in the discount off AWP at retail only and mail order only is considerably more modest.

29. At his ¶¶ 38 & 39, Dr. Willig improperly raises the standard defense argument regarding the use of averages in the calculation of aggregate damages: "Dr. Hartman's statistical analysis, at best, measures the average time trend in average payment percentages (APP = AA/AWP) across NDCs. As a general matter, regression analyses are designed to predict the averages of statistical variables, not the full distributions. A

finding that the average change in APP is small does not rule out the possibility that many TPPs responded by negotiating new APPs. … Nothing in Dr. Hartman's statistical analysis of this type of data would permit such analyses of damages for individual TPPs." My approach is standard; see ¶¶ 16-19 of my March 2007 Declaration, in which I cite one of Dr. Willig's business partners who has written extensively on the use of regression analysis for calculation of damages.[10]

30. At his ¶¶ 43-51, Dr. Willig argues that he and I should violate standard statistical procedure in our analysis presented to the Court. Let me provide some background.

31. I have stated in the statistical analysis of Attachment F of my September 2007 Declaration,[11] that if ***I ignore variations in the time patterns of changes in the mark-ups (through mitigation and/or other market factors) across all drugs*** and ***if instead I impose a common time pattern of changes over the 41 months for which I have data***, I find a small, negative and statistically-significant time trend over all drugs. However, I state immediately[12] thereafter that according to standard statistical practice, if my data allow me to test for the imposition of this assumption of commonality, I must do so. I have done so and statistically reject (resoundingly) the assumption that there was a common pattern of changes in the mark-ups revealed across all drugs. I reiterate those findings in Tables 6 and 7 of Attachment C.

32. Dr. Willig estimates the same sets of equations for his GE and CIGNA claims data. He first imposes a common time pattern on the mark-ups (i.e., discounts) across all drugs and then allows the time patterns to vary by drug. I reiterate his regression analyses in Tables 6 and 7 of my Attachment C. At the same time, I correct for his aggregation of the GE mail order and retail claims. I perform the same statistical tests to assess whether the assumption of ***the same time pattern of changing mark-ups is found for all drugs***. It is not. As with my analysis of the IMS data, Dr. Willig resoundingly rejects the imposition that the Mark-Up Scheme changed (or was mitigated) at the same rate for all drugs reimbursed by GE (overall, at mail order and at retail pharmacy) and by CIGNA.

33. This result should not be surprising. Whatever knowledge did come to market concerning the increased spreads (and the evidence demonstrates that it was minimal), we would expect that differential knowledge would have been available across Appendix A drugs and the realities of therapeutic competition and formulary placement would have

[10] Specifically, Dr. Daniel Rubinfeld, who is Robert L. Bridges Professor of Law and Professor of Economics and is the Director of the Program in Law and Economics, University of California at Berkeley. See Daniel Rubinfeld, "Reference Guide on Multiple Regression," pp. 179-227; and Robert E. Hall and Victoria A. Lazear, "Reference Guide of Estimation of Economic Losses in Damages Awards," pp. 277-332; both appearing in *Reference Manual on Scientific Evidence*, Second Edition, 2000, West Group. While not a class action, Daniel Rubinfeld and Peter Steiner discuss regression methods to assess average price impacts and damages for a large group of plaintiffs in a pharmaceutical market (sales of ampicillin) subject to the same individual variabilities found here; see their discussion of *In re Ampicillin Antitrust Litigation*, 88 F.R.D. 174 (D.C. Cir. 1983) in D.L. Rubinfeld and P.O. Steiner, "Quantitative Methods in Antitrust Litigation," *Law and Contemporary Problems*, 46(4), Autumn 1983. In all cases, their applications are precisely the same as mine.

[11] See my September 2007 Declaration, Attachment F, ¶¶ 31 & 32.

[12] *Ibid.*, See ¶ 33.

made patterns of any changing discounts off AWP vary across drugs. The data confirm this finding.

34. Dr. Willig ignores standard econometric practice and the sensible market understanding that we should expect varied market responses among drugs. Instead, he asserts,

- "If one is interested in evaluating the single time trend that best represents the combined time trends of the full set of drugs, then the appropriate model is to pool the observations to determine the average time trend" (¶ 46). ***That is, to impose a single trend.***
- "[T]he simpler combined trend across drugs is a relevant summary measure. ***Since evaluation of total TPP damages is across all drugs***, the ultimate goal of analysis is to determine if TPPs 'pushed back' ***any of the increases in the AWP/WAC ratio across all drugs.*** That is, the relevant statistical question is … to show a decline in APP overall. This is the relevant empirical question in determining whether there is evidence of market responses, or 'push-back'" (¶ 48, emphasis added).

35. These are surprising statements from Dr. Willig. He has aggressively criticized me, incorrectly, for assuming constant market responses. He has aggressively criticized me, incorrectly, for ignoring variation in the forms of mitigation that PBM/TPP contracts could reveal. Now, when he actually has data to test for variation in the pattern of potential mitigation and competition across drugs, he violates standard statistical practices to support a finding of a common time pattern of mitigation for all drugs. His attempt fails.

- As a matter of econometrics and statistics, the IMS market data and the GE and CIGNA claims data reveal that the time pattern of potential mitigation varies by drug. In some cases, the time pattern is negative. In some cases, the time pattern is positive, revealing no mitigation. In some cases, the time pattern is not measurably different from zero.
- Since my damages calculation allows for the calculation of damages by month and by drug, we should seek to find that time pattern of reimbursement changes revealed by the data for each drug, rather than impose an artificially common time pattern that has been rejected by the data.

G. Dr. Willig selectively improperly attributes theories to me that I have never articulated and that he seems to have concocted. He then claims to rebut them. This tactic adds nothing to the discussion of the issues.

36. Let me offer but a few examples.

37. At his ¶ 25, Dr. Willig asserts, "Dr. Hartman's current view appears to have evolved from a position that PBMs were ignorant of the implications of the alleged scheme to a position in which PBMs are complicit in the alleged scheme."

This assertion simply has no basis in fact. I have no idea to what it refers.

- I have identified the alleged conspirators, FDB and McKesson, who acted at the instigation of the large retailers. The record is rich in documentation of these allegations. None of these allegations or the discussion to date has suggested that PBMs were complicit in this conspiracy. The Court has recognized this evidence and understands this fact.
- There has been no evidence introduced that any more than ESI and Caremark understood the impacts of the Scheme upon the Spreads of some of the challenged drugs. It has never been clear whether either understood the full extent of the impacts upon all Appendix A drugs.
- All PBMs with mail order and/or network pharmacy inadvertently benefited from the Scheme, because the sources of profit at those lines of business were coincident with the sources of profits for large chain pharmacies. That was one reason why those PBMs that did indeed understand the implications of the Scheme did not aggressively compete them away. They did not have to; too few PBMs knew.

38. At his ¶ 24, Dr. Willig incorrectly asserts, "The most important implication of Dr. Hartman's theory that PBMs benefit from the alleged scheme and that they have market power (*i.e.*, competition is not 'fierce') is that his theory supports my position that PBMs' relationships with retail pharmacies and TPPs creates individual issues in determination of impact and damages."

My theory does not support this. I do not need to quantify or measure individual injury or impacts at this stage of the litigation. I need to accurately calculate aggregate class-wide damages. I have.

Attachment E

ATTACHMENT E
ANALYSIS OF PBM/TPP REIMBURSEMENT PRACTICES

The amounts that PBMs pay to pharmacies for a given prescription and the amount that TPPs then reimburse the PBMs for that prescription are closely related. Historically, PBMs have attempted to earn some spread on each retail transaction for each TPP prescription filled through the PBM's affiliated retail network. That spread is calculated as follows.

- PBMs contract with TPPs to be paid AWP – x% while the PBMs in turn contract with their retail-network pharmacies to pay them AWP – y%. Usually y% (say 17%) > x% (say 15%). Hence, if AWP = $100 prior to the Scheme, the TPPs paid the PBM $100 – $15 = $85. The PBM in turn paid the pharmacy $100 - $17 = $83. The PBM earned (y% - x%)*AWP = $2.00 per transaction, ignoring any other fees. AWP – y% = $83 was sufficient for the retail pharmacy to earn a profit at WAC = AWP – 20% = $80. That profit in this example is $3.00.[1]
- Upon its implementation, the AWP Mark-Up Scheme immediately benefited both the retail pharmacies and the PBM by inflating the AWP by 4.2%.[2] As a result,
  - The retail pharmacy received (AWP – y%)*1.042 = $83*1.042 = $86.486, or $3.486 more.
  - The PBM earned (17-15)%*AWP*1.042 = $2.084, or $0.084 more.
  - The TPP paid for both of these increased profits, (AWP – x%)*1.042 = $88.57, or $3.57 more.
- Hence, for every such script filled ***through the PBM's retail network,*** the PBM made $0.084 more, or 4.2%. For every such script filled through the PBM's retail network, the retailer made $3.486 more. Since its original profit was $3.00 ($83.00-$80.00), it more than doubled its profits, from $3.00 to $6.486.[3]

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[1] This Court has recognized these facts in the AWP MDL litigation as follows. In her *Memorandum and Order Re: Motion for Class Certification*, August 16, 2005, at pp. 21-22, citing my declaration and Dr. Rosenthal, Judge Saris has stated: "Turning to the nitty-gritty, in a typical transaction, a PBM will charge its client TPP an administrative fee (in the neighborhood of $.30 to $.40), a dispensing fee (around $2.50), and a drug price based on a percentage of AWP (e.g., AWP minus 13%). (Rosenthal 15-16.) The PBM, which has a contract with a pharmacy network, then pays the pharmacy the dispensing fee ($2.50), sometimes an administrative fee, and a lower drug reimbursement (AWP minus 15%; or, more typically, the same price expressed as a percentage over WAC). (Rosenthal 15-17.) The PBM pockets the difference between what it receives from its client and what it pays the pharmacy (here, 2% of AWP plus the administrative fee if not paid to the pharmacy). (Rosenthal 16; Hartman Decl. attach. E ¶ 12.)"

[2] For more detail on the derivation of the 4.2%, see ¶¶ 20-22 of my July 2006 Declaration.

[3] This is a conservative estimate according to McKesson. Recall ¶ 14 of my September 2007 Declaration where I cite the Court's *Memorandum and Order*, p. 8. (emphases added): "McKesson implemented this scheme in order to provide a greater spread to those important retail pharmacy clients like Rite Aid and Wal-Mart ***as well as its own pharmacy related businesses***. McKesson boasted that the increase in AWP resulted in '***more than 3 times the profit as before.***'"

The immediate increase observed at retail in the IMS data is $3.486, while the increased payment by the TPP is $3.57. ***Hence, not only is the calculation of actual TPP overcharges quite accurate (within 8 cents or 2%), it is understated and conservative,*** because the payment made by the TPP is always greater than the payment made by the PBM at retail. ***Hence, the IMS transactional data understates the extent to which the TPPs were injured and understates the amount of damages, by a small amount.***

Furthermore, suppose there is some push-back by the PBM against the retailer that is revealed in the IMS data. For example, say the amount paid at retail is reduced to $85.00 (the retailer gets only $2.00 more, rather than $3.486, while the PBM now keeps the difference = $1.486 + $0.084). The TPP still pays $88.57, or $3.57 more; the distribution between PBM and retailer has changed.[4] ***In this case, the actual overcharge to the TPP is increased relative to the overcharge measured with the IMS data. In this case, the calculation of overcharge damages is even more conservative.*** The damages calculation will be conservative until and if the PBM passes on the $2.00 push-back or mitigation to the TPPs. ***Hence, the use of IMS data will always provide a conservative estimate of TPP damages unless the PBMs were to give back more than they were able to negotiate from the retailers.*** As a matter of the economic and institutional realities of these markets, there is no theoretical reason why this would occur, given the principal-agent situation that describes PBM/TPP contracting; see Attachment E of my September 2007 Declaration. As a matter of the evidence, there is no documentation that any TPPs pushed to receive, or received any of the mitigation that may have occurred at retail. ***If they received it all, then my damage calculation is exact. If they received somewhat less, then my damage calculation is conservative.***

Finally, it is well known by students of these relevant markets that x% ≈ y% for brand name drugs (that is, the drugs subject to this litigation), and that PBMs make most of their money at mail-order, purchasing well below WAC and being reimbursed by their TPPs at AWP – x% = $85 (pre-Scheme) and (AWP – x%)*1.042 = $86.486 (post-Scheme). Hence, the reality for these markets is that, for the brand-name drugs at issue here, TPPs pay PBMs what the PBMs pay the retailers. PBMs make their money elsewhere.

[4] This is the result alluded to by Dr. Willig in ¶ 23 of his October 2007 Declaration as follows: "Dr. Hartman's theory, however, also implies that PBMs likely had an additional benefit from the alleged scheme. They were able to squeeze some or all of the increased margin out of retail pharmacies." As my example shows, that is possible. However, that possibility does not diminish TPP damages in the slightest. It merely shifts to the PBM some of the profit designed to go to the retailer. The TPP still pays the full injury. Furthermore, the fact that x% ≈ y% suggests that this specific strategic behavior did not occur.

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the above document was served upon the attorney of record for each other party through the Court's electronic filing service on October 29, 2007.

/s/ Steve W. Berman
Steve W. Berman